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

Site Number	Location	Name	Hwy	km
PH070	HWY 2:60 C1 33.840	East Hill Retaining Wall Site	2:60	Km 33.84
Legal Description: 4-27-83-21 W5		**UTM Co-ordinates**		
		11U E 485285	N 6230649	

Current Monitoring:	9-June-2025	**Previous Monitoring**	20-Sep-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): SI13-3, SI14-2, SI14-3, SI-P40, SI-P58, SI-P90 and, SI-P116	**Pneumatic Piezometers (PN):** PN13-2A, PN13-3A, PN13-3B, PN14-2A, PN14-2B, PN14-3A, PN14-3B, PN14-4A	**Vibrating Wire Piezometers (VW):**	**Standpipe Piezometers (SP):** SP14-1
Load Cell (LC): G39WL, G40WU, G58WU, G59WL, G80WL, G80WU, G102WL, G102WU, G118PU, G134PU, G150PU, G167PM, G182PL, G188PL, G190PL, G202PL	**Strain Gauges:** Thirty vibrating wire strain gauges were installed in pile P74 of the tied back pile wall (Ten malfunctioning as of the current readings)	**SAAs:** SAA-P74	**Others:**

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:** Heron dipmeter
Load Cell: Campbell Scientific CR6 datalogger (remote download and field laptop)	**Strain Gauges:** Campbell Scientific CR6 datalogger (remote download and field laptop)	**SAAs:** Campbell Scientific CR6 datalogger (remote download and field laptop)	**Others:**
Notes: Strain gauge No. 25, located at 10.2 m depth on the front side of the pile wall, stopped functioning since the fall of 2024 readings. Channels on the load cell datalogger were functioning inconsistently since December 6, 2024, and only certain time stamps contained useable readings. Values reported were for the most recent functional date for each individual load cell.			

Discussion	
Zones of New Movement:	None
Interpretation of Monitoring Results:	**SLOPE INDICATORS AND SAA** SI13-3, located downslope of the new pile wall, continued to show no discernible movement. Based on the instrument readings and on-site observations, SI13-3 is not installed deep enough to intercept the shear surface of the landslide. Slope inclinometer SI14-2, located upslope of the new pile wall, showed a rate of movement of 0.7 mm/yr over 2.8 m to 5.8 m depth, a rate of movement of 0.4 mm/yr over 17.4 m to 21.0 m depth and a rate of movement of 0.5 mm/yr over 24.7 m to 27.1 m depth since the fall of 2024 readings. These movement rates

have been steady for several years. Slope inclinometer SI14-3, also located upslope of the new pile wall, showed a rate of movement of 0.6 mm/yr over 3.3 m to 9.4 m depth since the fall of 2024 readings. For comparison the average movement rate since fall of 2018 is about 0.4 mm/yr.

Zones of movement in the piles were defined over the length of the pile and over the combined length of the pile and waler. Overall, the SIs installed in the pile wall and the SAA showed movement patterns similar to those observed over the past several readings cycles. There is a general pattern of gradual downslope movement observed in the pile wall SIs and SAA.

SI-P40, installed in Pile 40, showed a rate of movement of 1.4 mm/yr in the downslope direction over the length of the pile and a rate of movement of 0.9 mm/yr over the combined length of the pile and waler since the fall of 2024 readings. Pile 40 has shown a total cumulative pile head movement of 5.6 mm in the downslope direction and a total cumulative movement of 1.1 mm in the downslope direction over the combined length of the pile and waler.

SI-P58, installed in Pile 58, showed a rate of movement of less than 0.1 mm/yr over the length of the pile and no discernible movement over the combined length of the pile and waler since the fall of 2024 readings. The cumulative pile head movement was 5.6 mm in the upslope direction and the cumulative movement at the top of the waler was 7.4 mm in the upslope direction.

SI-P90, installed in Pile 90, showed no discernible movement over both the length of the pile and over the combined length of the pile and waler since the fall of 2024 readings. Pile 90 has shown a total cumulative pile head movement of 12.2 mm in the upslope direction and a total cumulative movement of 15.6 mm in the upslope direction over the combined length of the pile and waler.

SI-P116, installed in Pile 116, showed a rate of movement of less than 0.1 mm/yr over both the length of the pile and over the combined length of the pile and waler since the fall of 2024 readings. Pile 116 has shown a total cumulative pile head movement of 7.9 mm in the downslope direction and a total cumulative movement of 8.1 mm in the downslope direction over the combined length of the pile and waler.

SAA-P74, installed in pile P74, showed an average rate of movement of 3.7 mm/yr in the downslope direction over the length of the pile and an average rate of movement of 3.5 mm/yr over the combined length of the pile and waler in the downslope direction since the fall of 2024 readings. SAAP74 has shown a total cumulative pile head movement of 2.5 mm in the downslope direction and a total cumulative movement of 2.7 mm in the upslope direction over the combined length of the pile and waler.

STRAIN GAUGES

The strain gauges generally showed small increases in negative (compressive) strain on the downslope pile face. On the downslope pile face, the strain gauges generally showed small decreases in negative (compressive) strain. Eight of the strain gauges on the downslope pile face were not functioning during the current readings which made it difficult to observe a trend in the strain. The maximum change in microstrain (με) since the previous readings was 13.7 με, measured at 2.4 m depth on the upslope pile face.

PIEZOMETERS

Pneumatic piezometers PN13-2A, PN13-3A, PN14-2A, PN14-3A and PN14-3B showed decreases in groundwater level of 0.20 m, 0.05 m, 0.19 m, 0.03 m, and 0.02 m, respectively, since the fall of 2024 readings. PN14-3B and PN14-4A showed increases in groundwater level of 0.89 m and 0.01m, respectively, since the fall of 2024 readings. PN14-2B showed no change in groundwater level.

Standpipe piezometer SP14-1 showed a decrease in groundwater level of 0.55 m since the fall of 2024 readings.

	Overall, the piezometers have shown relatively stable groundwater levels for the past several years. These groundwater levels are within historical maximums. **LOAD CELLS** The load cells generally showed increases in measured load compared to the fall of 2024 readings, except for in G182PL, G188PL, and G202PL, ranging from an increase of 0.75 kN in anchor G150PU to an increase of 7.19 kN in G40WU. Between the current and fall of 2024 readings, G40WU, G58WU, G59WL, G80WU, G80WL, G134PU, G167PM, G190PL, and G202PL registered their maximum recorded loads. G182PL, G188PL, and G202PL showed decreases in measured load of 1.22 kN, 0.73 kN, and 0.49 kN, respectively. It should be noted that channels on the load cell datalogger were functioning inconsistently since December 6, 2024, and only certain time stamps contained useable readings. Values reported were for the most recent functional date for each individual load cell. Wall Section 2: Anchors G39WL and G40WU currently show a trend of gradually increasing load. G39WL and G40WU are currently 9.7 kN and 11.8 kN, respectively, above their SLS design loads. Wall Section 3A and 3B: Anchor G58WU shows a trend of slowly increasing loads; the current load is currently 21.0 kN above the SLS design load. Anchor G59WL, G118PU, G102WU, G102WL and G150PU have not shown significant changes in load since about 2017 and are all below SLS design loads. Wall Section 4: Anchor G190PL, in the bottom (fifth) row of anchors, shows a trend of increasing load. This is not a concern currently as the design of the wall assumed that the anchors installed through the piles in this wall section will pick up load over time. Anchors G134PU, and G168PM show a trend of small load increases over time. Currently the loads on G134PU and G168PM are well below the design SLS loads. G80WL is currently above its SLS design load by 27.67 kN. Anchors G182PL, G188PL and G202PL were installed as ‘stiff anchors’ that were left with some slack to allow the piles to deform before the anchors pick up load. These load cells indicate current loads ranging from 12.37 kN to 15.90 kN. These anchors have not shown significant changes in the loads since the end of construction, suggesting that there may still be some slack at the nut in these anchors. The load cells on G80WU and G80WL are showing loads that are 59.34 kN and 27.67 kN above SLS design load, respectively. However, these anchors were intentionally locked off at a higher load than the SLS load during construction, with the expectation that they would slacken over time.
Future Work:	The instruments should be read again in the fall of 2025. The readings from the load cells were used to complete a pile wall system performance review in August, 2024 to compare the measured responses to the expected design values. Since the new movements noted in SI14-2 are below the tips of the pile wall, special attention should be paid when reviewing future readings to check for potential increases in the rate of movement. Although the movement to date has been very small, the road surface should also be visually monitored at this location to check for any subsidence or new cracks. In additional a large slide is developing in the hillside to the west of the wall which needs to be visually monitored and compared to the annual readings of the wall.
Instrumentation Repairs:	In November 2024, the battery charging system was checked to ensure that the battery is charging from the solar panel, and a review of the electrical system was carried out to identify possible shorts or power drains. Additionally, a larger

	solar panel was installed for the datalogger to improve battery charging. This is particularly important for winter months with low sunlight. The wiring of the load cells, as well as the datalogging system and multiplexer should be checked to confirm if these are the source of inconsistent functioning of the load cell channels.
Additional Comments:	

Attachments:	• Table PH070-1 Spring 2025 – HWY 2:60 Peace River East Hill Retaining Wall Site (km 33.84) Slope Inclinometer Instrumentation Reading Summary • Table PH070-2 Spring 2025 – HWY 2:60 Peace River East Hill Retaining Wall Site (km 33.84) Shape Accelerometer Array Instrumentation Reading Summary • Table PH070-3 Spring 2025 – HWY 2:60 Peace River East Hill Retaining Wall Site (km 33.84) Vibrating Wire Strain Gauge Instrumentation Reading Summary • Table PH070-4 Spring 2025 – HWY 2:60 Peace River East Hill Retaining Wall Site (km 33.84) Pneumatic Piezometer Instrumentation Reading Summary • Table PH070-5 Spring 2025 – HWY 2:60 Peace River East Hill Retaining Wall Site (km 33.84) Standpipe Piezometer Instrumentation Reading Summary • Table PH070-6 Spring 2025 – HWY 2:60 Peace River East Hill Retaining Wall Site (km 33.84) Vibrating Wire Load Cell Instrumentation Reading Summary • Statement for Use and Interpretation of Report • APPENDIX A - PH070 SPRING 2025 o Field Inspector's report o Site Plans Showing Approximate Instrument Locations (Drawings No. 32121 PH070-1 and 32121-PH070-2) o SI Reading Plots o SAA Reading Plots o Figure PH070-1 (Downslope Strain Gauge Values) o Figure PH070-2 (Upslope Strain Gauge Values) o Figure PH070-3 (Piezometric Elevations) o Figure PH070-4 (Piezometric Depths) o Figure PH070-5 (Section 2 Load cells) o Figure PH070-6 (Section 3A Load Cells) o Figure PH070-7 (Section 3B Load Cells) o Figure PH070-8 (Section 4 Load Cells)

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.
Tarek Abdelaziz, Ph.D., P.Eng.
Partner | Senior Geotechnical Engineer

July 12, 2025

PERMIT TO PRACTICE
THURBER ENGINEERING LTD.
RM SIGNATURE:
RM APEGA ID #: 91085
DATE: July 13, 2025
PERMIT NUMBER: P005186
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

Lucas Green, P.Eng.
Geotechnical Engineer

Table PH070-1 Spring 2025 – Hwy 2:60 Peace River East Hill Retaining Wall Site (Km 33.84) Slope Inclinometer Instrumentation Reading Summary

Date Monitored: June 9, 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)	RATE OF MOVEMENT (mm/yr)	CHANGE IN RATE OF MOVEMENT SINCE PREVIOUS READING (mm/yr)
SI10-1	*March 4, 2010*	*53.4 mm over 0 m to 3.0 m depth in 173° direction*	*52.1 mm/yr. in September 2013*	*Removed during construction*	*September 15, 2016*	*N/A*	*N/A*	*N/A*
		13.1 mm over 3.6 m to 6.6 m depth in 173° direction	*3.8 mm/yr. in May 2015*			*N/A*	*N/A*	*N/A*
		3.8 mm over 26.2 m to 28.0 m depth in 173° direction	*3.3 mm/yr. in May 2010*			*N/A*	*N/A*	*N/A*
SI10-2	*March 4, 2010*	*27.5 mm over 4.1 m to 5.9 m depth in 330° direction*	*54.7 mm/yr. in September 2010*	*Sheared at ~6.1 m depth*	*June 1, 2011*	*N/A*	*N/A*	*N/A*
		1.8 mm over 24.2 m to 26.0 m depth in 250° direction	*4.4 mm/yr. in May 2010*			*N/A*	*N/A*	*N/A*
SI13-2	*August 4, 2013*	*33.3 over 15.5 m to 19.1 m depth in 17° direction*	*16.5 in September 2015*	*Removed during construction*	*June 2, 2016*	*N/A*	*N/A*	*N/A*
SI13-3	August 4, 2013	No discernible movement	No discernible movement	Operational	September 20, 2024	N/A	N/A	N/A

Drawings 32121-PH070-1 and 32121-PH070-2 in Appendix A provide a sketch of the approximate locations of the monitoring instrumentation for this site.

Table PH070-1 – Continued… Spring 2025 – Hwy 2:60 Peace River East Hill Retaining Wall Site (Km 33.84) Slope Inclinometer Instrumentation Reading Summary

Date Monitored: June 9, 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)	RATE OF MOVEMENT (mm/yr)	CHANGE IN RATE OF MOVEMENT SINCE PREVIOUS READING (mm/yr)
SI14-2	December 16, 2014	7.2 mm over 2.8 m to 5.8 m depth in 185° direction	24.7 mm/yr in December 2014	Operational	September 20, 2024	0.5	0.7	0.4
		15.1 mm over 17.4 m to 21.0 m depth in 185° direction	18.9 mm/yr in December 2014			0.3	0.4	-0.5
		11.5 mm over 24.7 m to 27.1 m depth in 185° direction	4.2 mm/yr in May 2015			0.4	0.5	-0.4
SI14-3	December 16, 2014	21.2 mm over 3.3 m to 9.4 m depth in 171° direction	85.8 mm/yr in December 2014	Operational	September 20, 2024	0.5	0.6	-0.7
SI14-4	*December 20, 2014*	*44.7 mm over 17.3 m to 19.7 m depth in 171° direction*	*18.1 mm/yr in September 2016*	*Sheared at 19.5 m below top of casing*	*June 13, 2022*	*N/A*	*N/A*	*N/A*

Drawings 32121-PH070-1 and 32121-PH070-2 in Appendix A provide a sketch of the approximate locations of the monitoring instrumentation for this site.

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Table PH070-1 – Continued… Spring 2025 – Hwy 2:60 Peace River East Hill Retaining Wall Site (Km 33.84) Slope Inclinometer Instrumentation Reading Summary

Date Monitored: June 9, 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)	RATE OF MOVEMENT (mm/yr.)	CHANGE IN RATE OF MOVEMENT SINCE PREVIOUS READING (mm/yr.)
SI-P40	October 19, 2016	5.6 mm over 2.4 m to 19.5 m depth in 188° direction	-39.8 mm/yr. on April 4, 2017	Operational	September 20, 2024	1.0	1.4	-0.8
		1.1 mm over 0 m to 19.5 m depth in 188° direction	-57.3 mm/yr. on April 4, 2017			1.0	0.9	-1.4
SI-P58	October 18, 2016	-5.6 mm over 2.4 m to 23.7 m depth in 209° direction	-70.8 mm/yr. on June 24, 2017	Operational	September 20, 2024	<0.1	<0.1	1.7
		-7.4 mm over 0.5 m to 23.7 m depth in 209° direction	-65.7 mm/yr. on June 24, 2017			No Discernible Movement	N/A	-2.3
SI-P90	October 18, 2016	-12.2 mm over 1.9 m to 23.3 m depth in 174° direction	-76.0 mm/yr. on April 8, 2017	Operational	September 20, 2024	No Discernible Movement	N/A	-2.6
		-15.6 mm over 0.1 m to 23.3 m depth in 174° direction	-97.5 mm/yr. on April 8, 2017			No Discernible Movement	N/A	-3.2
SI-P116	November 25, 2016	7.9 mm over 1.6 m to 18.1 m depth in 189° direction	20.7 mm/yr. on October 4, 2017	Operational	September 20, 2024	<0.1	<0.1	-1.9
		8.1 mm over 0.4 m to 18.1 m depth in 189° direction	19.6 mm/yr. on October 4, 2017			<0.1	<0.1	-1.5

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Table PH070-2 Spring 2025 – Hwy 2:60 Peace River East Hill Retaining Wall Site (Km 33.84) Shape Accelerometer Array Instrumentation Reading Summary

Date Monitored: June 9, 2025

INSTRUMENT #	DATE INITIALIZED	TOTAL CUMULATIVE RESULTANT MOVEMENT AT NOTED DEPTH SINCE INITIAL READING (mm)	CURRENT STATUS	DATE OF PREVIOUS READING*	INCREMENTAL MOVEMENT SINCE PREVIOUS READING (mm)	AVERAGE RATE OF MOVEMENT SINCE PREVIOUS READING (mm/yr.)	CHANGE IN AVERAGE RATE OF MOVEMENT SINCE PREVIOUS READING (mm/yr.)
SAA-P74	January 31, 2017	2.5 over 2.0 m to 31.0 m depth in 194° direction	Operational	September 20, 2024	2.6	3.7	1.8
		-2.7 over 1.0 m to 31.0 m depth in 194° direction			2.5	3.5	1.9

Drawings 32121-PH070-1 and 32121-PH070-2 in Appendix A provide a sketch of the approximate locations of the monitoring instrumentation for this site.

***** SAA readings are taken once per day and collected to datalogger. The movement rate is an average rate compared to the previous readings in the fall of 2024.

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Table PH070-3 Spring 2025 – Hwy 2:60 Peace River East Hill Retaining Wall Site (Km 33.84) Vibrating Wire Strain Gauge Instrumentation Reading Summary

Date Monitored: June 9, 2025

DEPTH FROM TOP OF PILE P74 (m)	GAUGE #	TOTAL MICROSTRAIN (με)	CHANGE IN MICROSTRAIN SINCE PREVIOUS READINGS* (με)	MEASURED TEMPERATURE (°c)	GAUGE #	TOTAL MICROSTRAIN (με)	CHANGE IN MICROSTRAIN SINCE PREVIOUS READINGS* (με)	MEASURED TEMPERATURE (°c)
UPSLOPE PILE FACE					**DOWNSLOPE PILE FACE**			
0.2	29	-118.4	1.6	15.6	28	-88.8	-8.2	19.5
2.4	8	-7.2	13.7	13.3	3	-2.0	-4.7	16.2
4.2	*5*	*Not functioning*	*N/A*	*N/A*	22	48.3	0.5	9.4
6.2	14	-194.5	-10.2	7.1	12	33.0	2.1	*Not functioning*
8.2	13	-173.7	-8.8	7.4	7	*Not functioning*	*N/A*	*N/A*
10.2	4	-175.2	-8.6	7.7	25	*Not functioning*	*N/A*	*N/A*
12.2	1	-163.5	-6.2	7.9	11	*Not functioning*	*N/A*	*N/A*
14.2	15	-141.0	-4.1	8.0	16	*Not functioning*	*N/A*	*N/A*
16.2	9	-133.9	-3.9	8.0	21	9.8	2.2	*Not functioning*
18.2	27	-91.6	-2.0	8.0	23	18.8	2.4	8.0
20.2	6	-136.5	-1.5	7.9	20	*Not functioning*	*N/A*	*N/A*
22.2	30	-44.0	0.6	7.9	19	*Not functioning*	*N/A*	*N/A*
24.2	2	*Not functioning*	*N/A*	*N/A*	24	*Not functioning*	*N/A*	*N/A*
26.2	26	-45.3	-1.0	7.9	17	-128.4	-3.7	7.9
28.2	10	-72.9	-1.7	7.8	*18*	*Not functioning*	*N/A*	19.5

Drawings 32121-PH070-1 and 32121-PH070-2 in Appendix A provide a sketch of the approximate locations of the monitoring instrumentation for this site.

***** Previous readings taken on September 20 2024

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Table PH070-4 Spring 2025 – Hwy 2:60 Peace River East Hill Retaining Wall Site (Km 33.84) Pneumatic Piezometer Instrumentation Reading Summary

Date Monitored: June 9, 2025

INSTRUMENT #	DATE INITIALIZED	TIP DEPTH (m)	GROUND ELEV. (m)	CURRENT STATUS	HIGHEST MEASURED WATER LEVEL BGS (m)	MEASURED PORE PRESSURE (kPa)	CURRENT WATER LEVEL BGS (m)	PREVIOUS WATER LEVEL BGS (m)	CHANGE IN WATER LEVEL SINCE PREVIOUS READING (m)
PN10-1 (33089)	*Feb. 21, 2010*	*9.1*	-	*Removed during construction*	*8.06 on May 20, 2015*	*N/A*	*N/A*	*8.94 (Sep. 15, 2016)*	*N/A*
PN10-2 (33091)	*Feb. 21, 2010*	*19.0*	-	*Damaged/ Sheared*	*11.62 on May 20, 2015*	*N/A*	*N/A*	*17.46 (Sep. 27, 2017)*	*N/A*
PN13-2A (35449)	August 4, 2013	6.1	490.6	Operational	4.35 on August 4, 2013	9.2	5.16	4.96	-0.20
PN13-2B (35446)	*August 4, 2013*	*26.7*	*490.6*	*Removed during construction*	*16.92 m on May 20, 2015*	*N/A*	*N/A*	*18.11 (June 2, 2016)*	*N/A*
PN13-3A (35451)	August 4, 2013	9.1	486.4	Operational	7.27 on August 4, 2013	1.5	8.95	8.90	-0.05
PN13-3B (35444)	August 4, 2013	18.3	486.4	Operational	13.40 On May 20, 2017	35.2	14.71	15.60	0.89
PN14-2A (35757)	November 23, 2014	13.0	490.5	Operational	11.95 on May 20, 2015	2.2	12.78	12.59	-0.19
PN14-2B (35867)	November 23, 2014	28.0	490.5	Operational	19.14 on November 23, 2014	66.2	21.25	21.25	0
PN14-3A (35759)	November 23, 2014	13.0	490.9	Operational	11.59 on May 20, 2015	4.6	12.53	12.50	-0.03
PN14-3B (35866)	November 23, 2014	25.0	490.9	Operational	23.17 on November 23, 2014	3.6	24.63	24.61	-0.02

Drawings 32121-PH070-1 and 32121-PH070-2 in Appendix A provide a sketch of the approximate locations of the monitoring instrumentation for this site.

Table PH070-4 – Continued… Spring 2025 – Hwy 2:60 Peace River East Hill Retaining Wall Site (Km 33.84) Pneumatic Piezometer Instrumentation Reading Summary

Date Monitored: June 9, 2025

INSTRUMENT #	DATE INITIALIZED	TIP DEPTH (m)	GROUND ELEV. (m)	CURRENT STATUS	HIGHEST MEASURED WATER LEVEL BGS (m)	MEASURED PORE PRESSURE (kPa)	CURRENT WATER LEVEL BGS (m)	PREVIOUS WATER LEVEL BGS (m)	CHANGE IN WATER LEVEL SINCE PREVIOUS READING (m)
PN14-4A (35758)	November 23, 2014	10.5	486.5	Operational	9.02 on November 23, 2014	2.5	10.25	10.26	0.01
PN14-4B (35865)	*November 23, 2014*	*28.0*	*486.5*	*Not functioning*	*13.94 on November 23, 2014*	*N/A*	*N/A*	*27.82 (Sep. 29, 2019)*	*N/A*

Drawings 32121-PH070-1 and 32121-PH070-2 in Appendix A provide a sketch of the approximate locations of the monitoring instrumentation for this site.

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Table PH070-5 Spring 2025 – Hwy 2:60 Peace River East Hill Retaining Wall Site (Km 33.84) Standpipe Piezometer Instrumentation Reading Summary

Date Monitored: June 9, 2025

INSTRUMENT #	DATE INITIALIZED	TIP DEPTH (m)	GROUND ELEV. (m)	CURRENT STATUS	MAXIMUM GROUNDWATER LEVEL (m)	MEASURED GROUNDWATER DEPTH (m)	PREVIOUS READING (m)	CHANGE IN GROUNDWATER LEVEL SINCE PREVIOUS READING (m)
SP13-1	*August 4, 2013*	*14.9*	*490.8*	*Blocked at 0.9 m below top of casing*	*1.18 on June 2, 2016*	*N/A*	*N/A*	*N/A*
SP14-1	November 23, 2014	15.5	490.2	Operational	3.21 on June 13, 2022	3.99	3.44	-0.55

Drawings 32121-PH070-1 and 32121-PH070-2 in Appendix A provide a sketch of the approximate locations of the monitoring instrumentation for this site.

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Table PH070- Spring 2025 – Hwy 2:60 Peace River East Hill Retaining Wall Site (Km 33.84) Vibrating Wire Load Cell Instrumentation Reading Summary

Date Monitored: June 9, 2025

ANCHOR NUMBER	LOAD CELL SERIAL #	SLS DESIGN LOAD / LOCK-OFF LOAD (kN)	MAXIMUM RECORDED LOAD (kN)	RECORDED LOAD (1) (2) (kN)	PREVIOUS RECORDED LOAD (1) (SEPTEMBER 20, 2024) (kN)	CHANGE IN LOAD SINCE PREVIOUS READING (kN)
G39WL	VC1977	253/253	263.76 on September 20, 2024	262.69 (Mar. 23, 2025)	257.35	5.34
G40WU	VC1975	331/331	343.25 on February 21, 2025	342.84 (Mar. 23, 2025)	335.65	7.19
G58WU	VC1972	366/358	388.74 on February 22, 2025	386.98 (Jun. 9, 2025)	381.73	5.25
G59WL	VC1973	325/308	274.02 on March 1, 2025	273.32 (Mar. 24, 2025)	270.92	2.40
G80WU	VC1969	246/331	308.58 on February 2, 2025	305.34 (Jun. 9, 2025)	301.39	3.95
G80WL	VC1970	293/337	322.05 on February 21, 2025	320.67 (Jun. 9, 2025)	315.32	5.35
G102WU	VC1974	366/358	343.61 on October 2, 2017	339.56 (Mar. 24, 2025)	337.31	2.25
G102WL	VC1976	325/308	343.70 on April 7, 2017	317.78 (Mar. 23, 2025)	316.29	1.49
G118PU	VC1980	320/257	217.20 on June 24, 2017	209.99 (Mar. 23, 2025)	207.00	2.99
G134PU	VC1979	288/229	222.82 on May 31, 2025	217.98 (Mar. 27, 2025)	211.71	6.27
G150PU	VC1978	288/229	236.60 on May 28, 2017	219.59 (Mar. 24, 2025)	218.84	0.75

Drawings 32121-PH070-1 and 32121-PH070-2 in Appendix A provide a sketch of the approximate locations of the monitoring instrumentation for this site.

(1) Load cell data is recorded daily with datalogger on site. See Figures PH070-5 to PH070-8 in Appendix A for combined historical instrument readings.
(2) Most recent functional reading reported for each individual load cell.

Table PH070-6– Continued… Spring 2025 – Hwy 2:60 Peace River East Hill Retaining Wall Site (Km 33.84) Vibrating Wire Load Cell Instrumentation Reading Summary

Date Monitored: June 9, 2025

ANCHOR NUMBER	LOAD CELL SERIAL #	DESIGN LOAD / LOCK-OFF LOAD (kN)	MAXIMUM RECORDED LOAD (kN)	RECORDED LOAD (1) (2) (kN)	PREVIOUS RECORDED LOAD (1) (SEP. 20, 2024) (kN)	CHANGE IN LOAD SINCE PREVIOUS READING (kN)
G167PM	VC1971	302/175	184.76 on May 29, 2025	183.62 (Jun. 9, 2025)	178.35	5.27
G190PL	VC1968	302/105	175.36 on June 9, 2025	175.36 (Jun. 9, 2025)	172.36	3.00
G182PL(2)	VC2023	302/0	15.38 on September 16, 2022	12.61 (Mar. 23, 2025)	13.83	-1.22
G188PL(2)	VC2024	302/0	16.63 on September 19, 2024	15.90 (Mar. 23, 2025)	16.63	-0.73
G202PL(2)	VC2025	302/0	14.99 on January 12, 2025	12.37 (Mar. 23, 2025)	12.86	-0.49

Drawings 32121-PH070-1 and 32121-PH070-2 in Appendix A provide a sketch of the approximate locations of the monitoring instrumentation for this site.

(1) Load cell data is recorded daily with datalogger on site. See Figures PH070-5 to PH070-8 in Appendix A for combined historical instrument readings.
(2) Most recent functional reading reported for each individual load cell.
(3) Stiff anchors left with slack in the anchor nut during construction.

THURBER

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.

THURBER

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

SPRING 2025

APPENDIX A
DATA PRESENTATION

SITE PH070: HWY 2:60, PEACE RIVER EAST HILL
RETAINING WALL SITE (km 33.84)

ALBERTA TRANSPORTATION AND ECONOMIC CORRIDORS
PEACE REGION (PEACE RIVER DISTRICT)
INSTRUMENTATION MONITORING FIELD SUMMARY (PH070)
SPRING 2025

Location:	East Hill Retaining Wall Site (HWY 2:60 C1 33.840)	**Readout:**	RST PN C108 Unit 8/ DGSI Dipmeter
File Number:	32121	**Extension:**	2.75"
Probe:	RST 5R and 8R	**Temp:**	17
Cable:	RST 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-			
SI13-3	485285	6230649	09-Jun-25	1.32	66 to 2	170	-1112	1116	-1451	1435	5R/5R	2.75"	
SI14-2	485222	6230662	09-Jun-25	1.21	98 to 2	160	440	-433	43	-64	5R/5R	2.75"	
SI14-3	485260	6230664	09-Jun-25	1.23	98 to 2	150	-429	443	-526	527	5R/5R	2.75"	
SI-P40	485240	6230661	09-Jun-25	0.94	66 to 2	212	-142	158	199	-198	8R/8R	2.75"	Pile Wall
SI-P58	485263	6230633	09-Jun-25	1.00	80 to 2	131	-1844	1860	-727	729	8R/8R	2.75"	Pile Wall
SI-P90	485312	6230668	09-Jun-25	0.80	78 to 2	143	-342	358	318	-315	8R/8R	2.75"	Pile Wall
SI-P116	485348	6230622	09-Jun-25	1.12	62 to 2	203	226	-224	-900	896	8R/8R	2.75"	Pile Wall

PNEUMATIC PIEZOMETER (PN) READINGS

PN#	GPS Location (UTM 11)		Date	Reading (kPa)	Identification Number
	Easting (m)	Northing (m)			
PN13-2A	485283.33	6230665.34	09-Jun-25	9.2	35449
PN13-3A	485284.52	6230648.64	09-Jun-25	1.5	35451
PN13-3B	485284.52	6230648.64	09-Jun-25	35.2	35444
PN14-2A	485221.85	6230662.44	09-Jun-25	2.2	35757
PN14-2B	485221.85	6230662.44	09-Jun-25	66.2	35867
PN14-3A	485260.48	6230664.41	09-Jun-25	4.6	35759
PN14-3B	485260.48	6230664.41	09-Jun-25	3.6	35866
PN14-4A	485260.79	6230648.07	09-Jun-25	2.5	35758

STANDPIPE PIEZOMETER (SP) READINGS

SP#	GPS Location (UTM 11)			Stick-up (m)	Reading below top of casing (m)	Bottom Pipe Depth (below top of casing (m)
	Easting (m)	Northing (m)				
SP14-1	485221.459	6230689.704	09-Jun-25	1	4.99	15.45

Datalogger is connected to a modem - check datalogger for possible tampering and be ready for manual download with 12V battery

ALBERTA TRANSPORTATION AND ECONOMIC CORRIDORS
PEACE REGION (PEACE RIVER DISTRICT)
INSTRUMENTATION MONITORING FIELD SUMMARY (PH070)
SPRING 2025

Location:	East Hill Retaining Wall Site (HWY 2:60 C1 33.840)	**Readout:**	CR6 Datalogger
File Number:	32121	**Extension:**	
Probe:		**Temp:**	17
Cable:		**Read by:**	NKR/GE

VIBRATING WIRE LOAD CELL (VC) READINGS

VC#	Datalogger	Date	Remarks
VC1968-VC1980, VC2023 - VC2025	CR6	9-Jun-25	Remotely Downloaded

VIBRATING WIRE STRAIN GAUGES (VWSG) READINGS

Depth From Pile Top (m)	Pile P74 Gauge Number		Datalogger	Date	Remarks
	Upslope	Downslope			
0.2	29	28	CR6	9-Jun-25	Remotely Downloaded
2.4	8	3			
4.2	5*	22			
6.2	14	12			
8.2	13	7*			
10.2	4	25*			
12.2	1	11*			
14.2	15	16*			
16.2	9	21			
18.2	27	23			
20.2	6	20*			
22.2	30	19*			
24.2	2*	24*			
26.2	26	17			
28.2	10	18*			

SHAPE ACCELEROMETER ARRAY (SAA) READINGS

SAA#	Location	Datalogger	Date	Remarks
SAA-P74	Pile 74	CR6	9-Jun-25	Remotely Downloaded

Datalogger is connected to a modem - check datalogger for possible tampering and be ready for manual download with 12V battery

* Not Functioning

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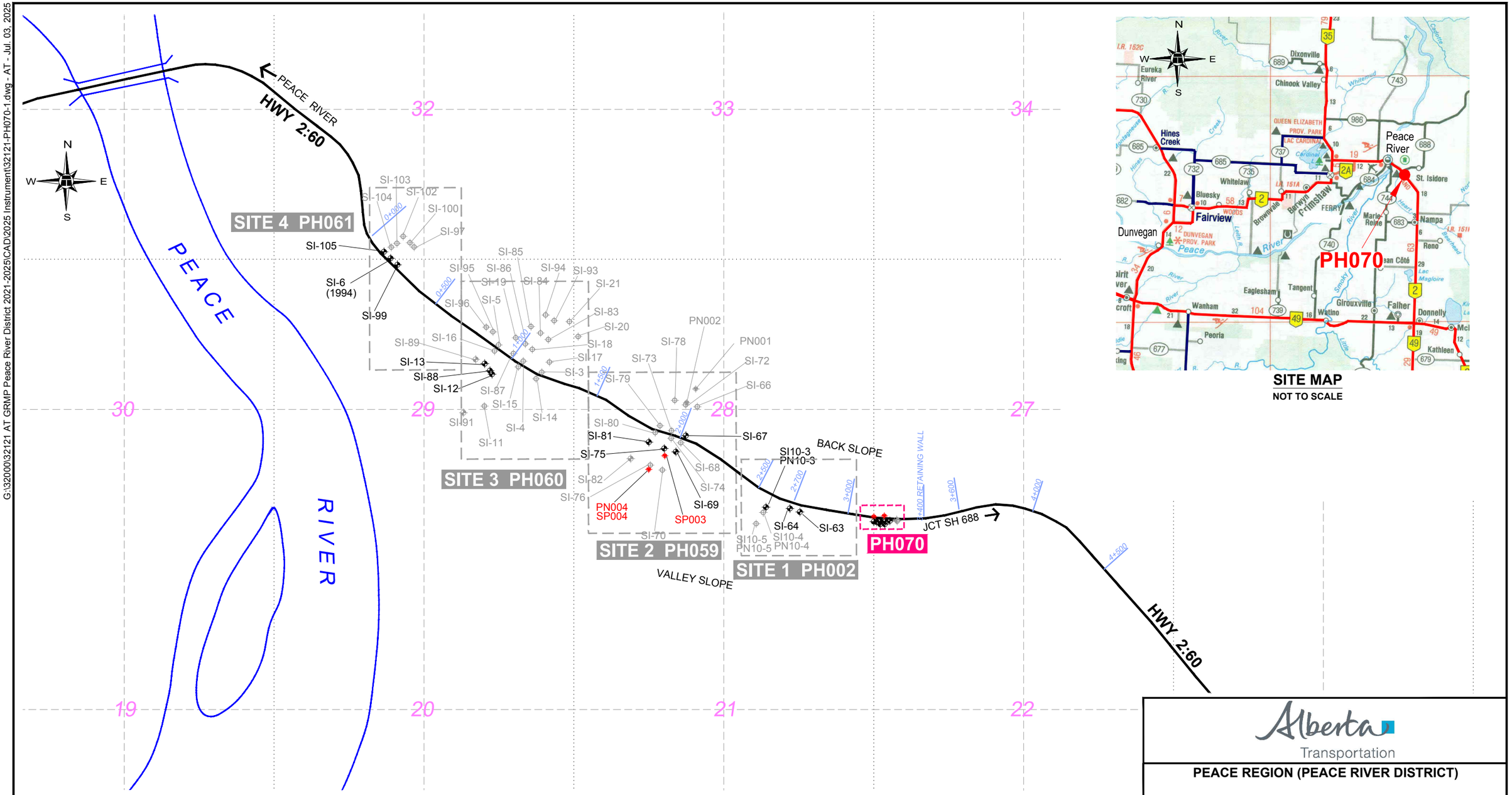


SITE PLAN
1:20,000 (APPROX.)

SITE MAP
NOT TO SCALE

LEGEND :

- SLOPE INCLINOMETER *(currently using)*
- SP STANDPIPE PIEZOMETER
- PN PNEUMATIC PIEZOMETER
- SLOPE INCLINOMETER *(not in use)*
- PNEUMATIC PIEZOMETER *(not in use)*

Alberta Transportation

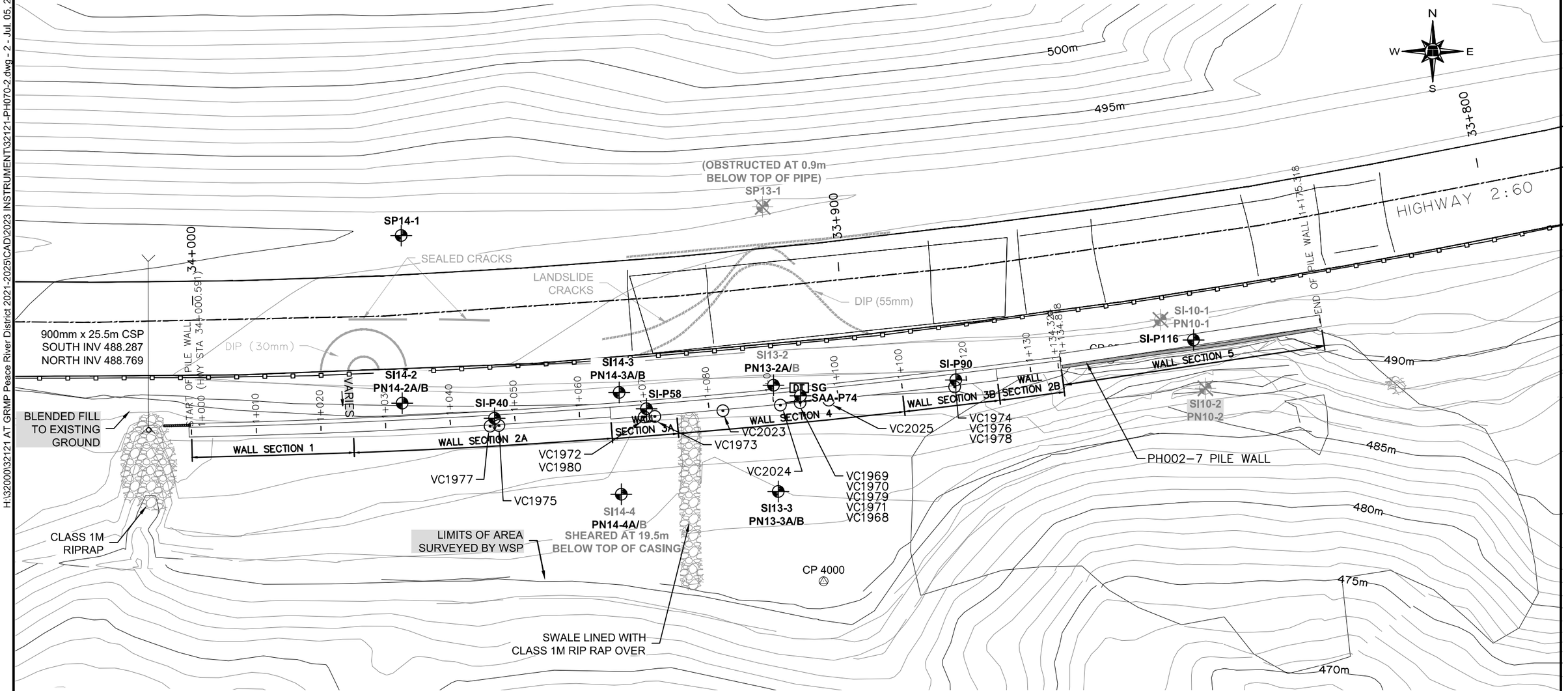
PEACE REGION (PEACE RIVER DISTRICT)

PH070: PEACE RIVER EAST HILL INSTRUMENTATION READINGS

DWG No. 32121-PH070-1

DRAWN BY	ML
DESIGNED BY	BWN
APPROVED BY	DWP
SCALE	AS SHOWN
DATE	JULY 2025
FILE No.	32121

THURBER



LEGEND

- INSTRUMENT LOCATION
- DAMAGED / NON - OPERATIONAL INSTRUMENT LOCATION
- VIBRATING WIRE LOAD CELL LOCATION
- DT — DATALOGGER
- SI — SLOPE INCLINOMETER
- PN — PNEUMATIC PIEZOMETER
- TH — TEST HOLE
- VC — VIBRATING WIRE LOAD CELL
- CONTROL POINT
- GUARD RAIL
- SG — STRAIN GAUGES

NOTES

LOAD CELLS, SHAPE ACCELEROMETER ARRAY, AND STRAIN GAUGES ARE CONNECTED TO A CAMPBELL SCIENTIFIC CR6 DATALOGGER (SERIAL # 4301)

0 5 10 15 20 30m

SCALE 1:600

Alberta

PEACE REGION (PEACE RIVER DISTRICT)

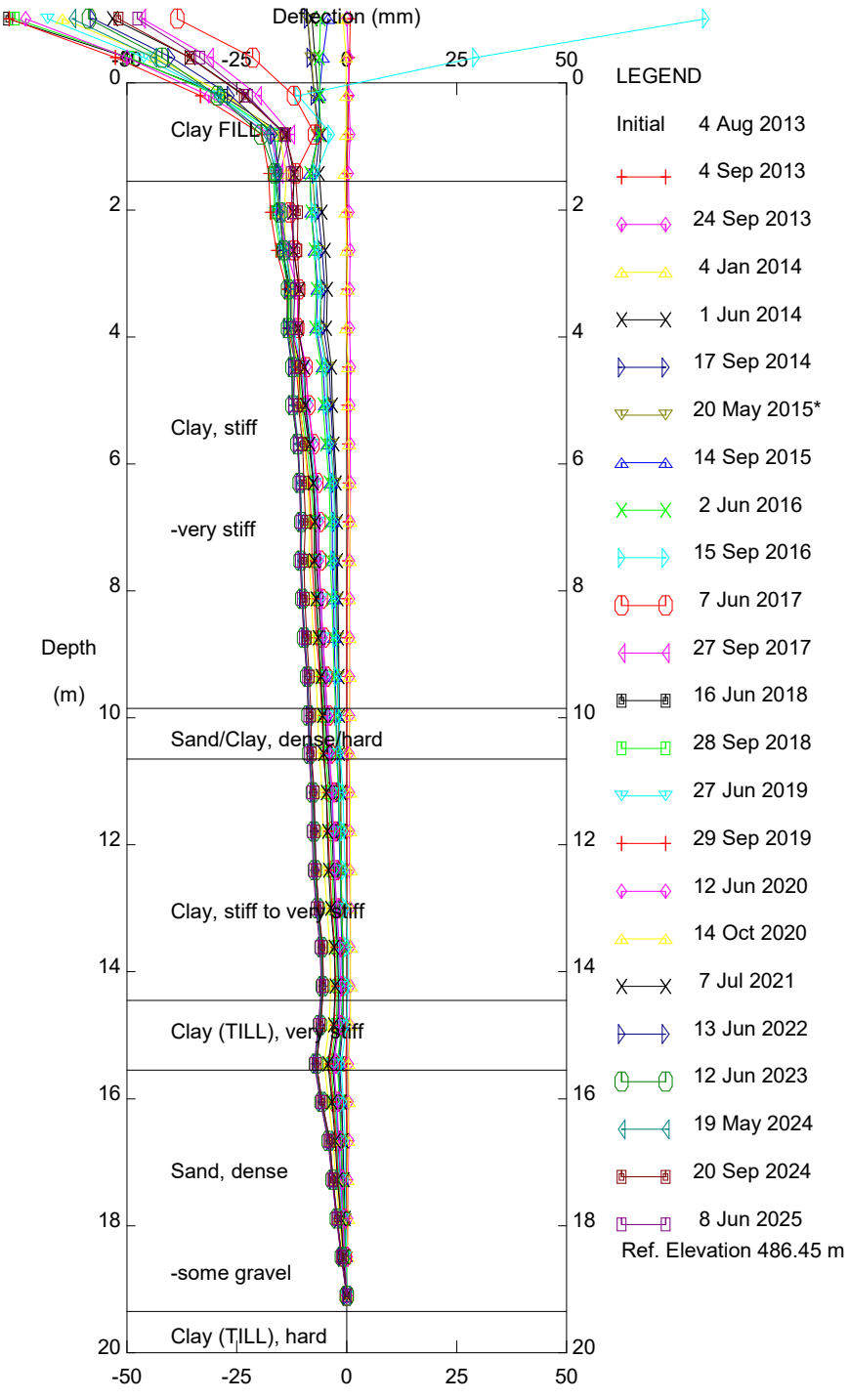
PH070: HWY 2:60 PEACE RIVER EAST HILL RETAINING WALL SITE (km 33.84) INSTRUMENTATION READINGS

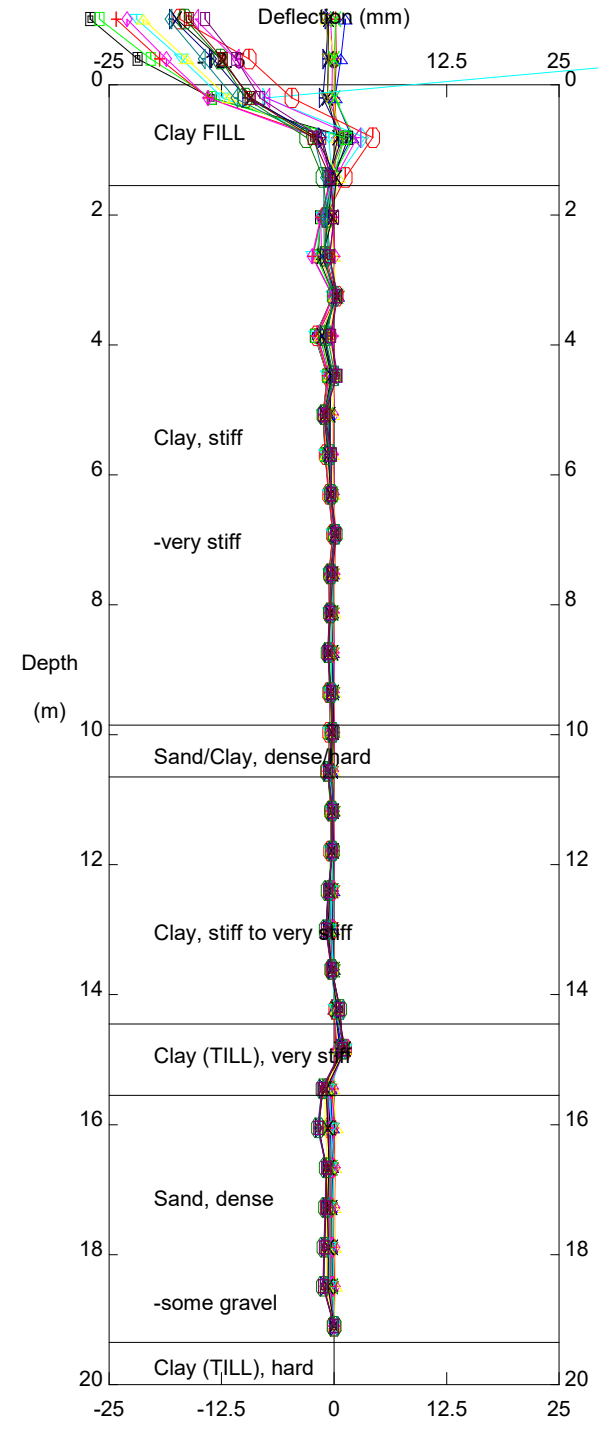
DWG No. 32121-PH070-2

DRAWN BY	ML
DESIGNED BY	BWN
APPROVED BY	DWP
SCALE	1:600
DATE	JULY 2023
FILE No.	32121

THURBER

Thurber Engineering Ltd.





LEGEND

Initial	4 Aug 2013
	4 Sep 2013
	24 Sep 2013
	4 Jan 2014
	1 Jun 2014
	17 Sep 2014
	20 May 2015*
	14 Sep 2015
	2 Jun 2016
	15 Sep 2016
	7 Jun 2017
	27 Sep 2017
	16 Jun 2018
	28 Sep 2018
	27 Jun 2019
	29 Sep 2019
	12 Jun 2020
	14 Oct 2020
	7 Jul 2021
	13 Jun 2022
	12 Jun 2023
	19 May 2024
	20 Sep 2024
	8 Jun 2025

Ref. Elevation 486.45 m

Cumulative Deflection

Direction A

Incremental Deflection

Direction A

Peace River East Hill PH070, Inclinometer SI13-3

Alberta Transportation

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

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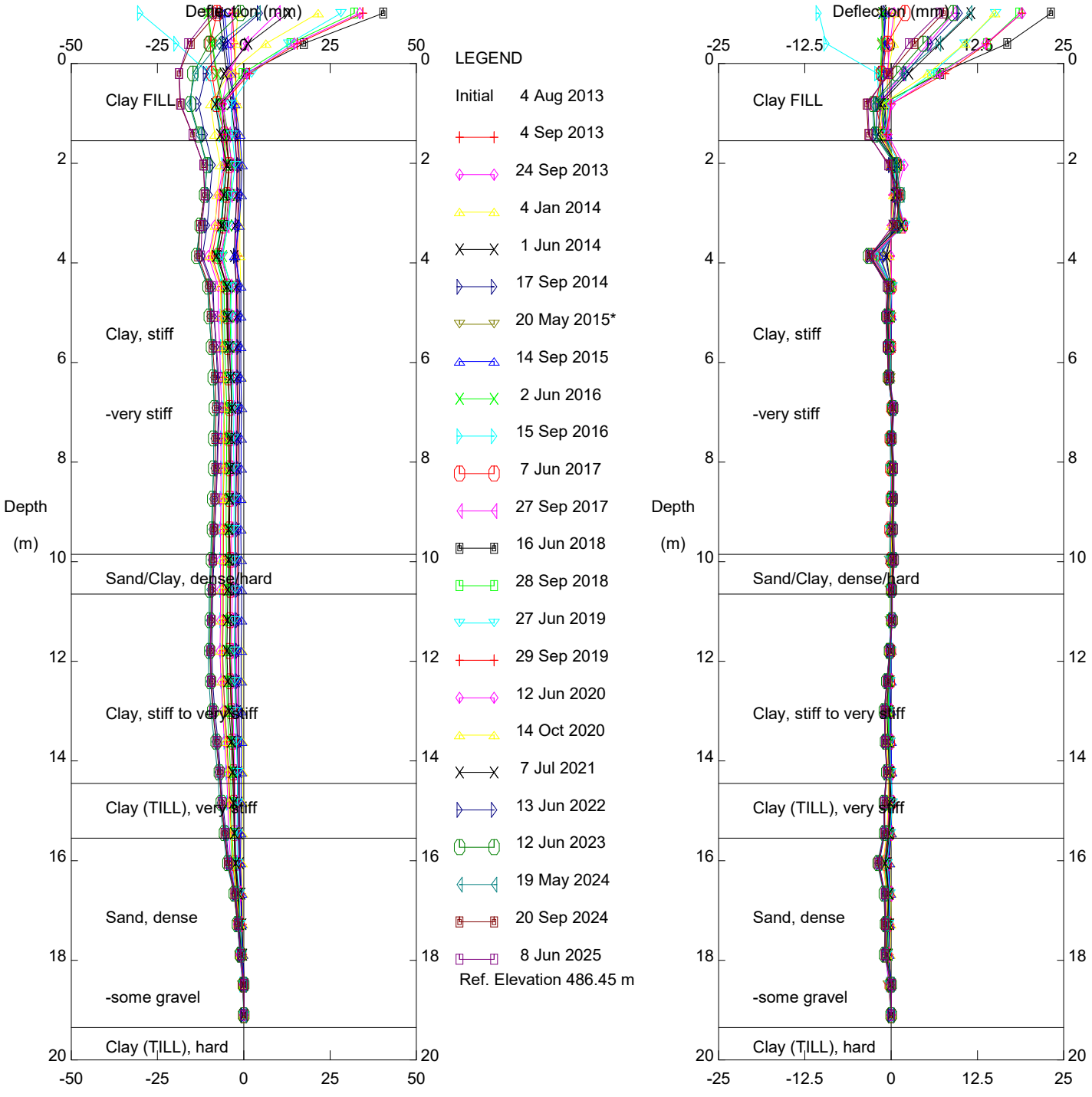
Thurber Engineering Ltd.



Cumulative Deflection

Direction B

Incremental Deflection

Direction B

Peace River East Hill PH070, Inclinometer SI13-3

Alberta Transportation

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

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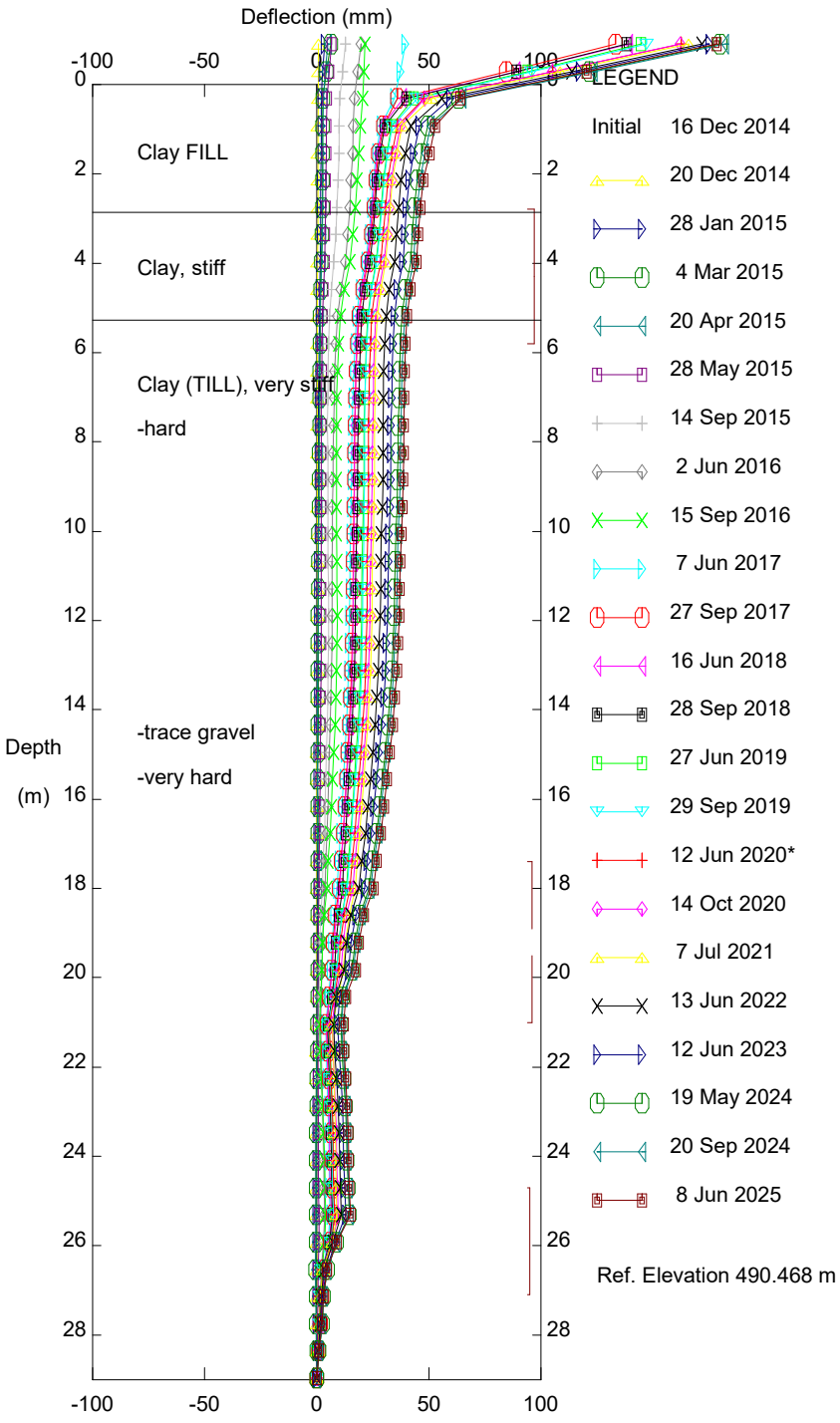
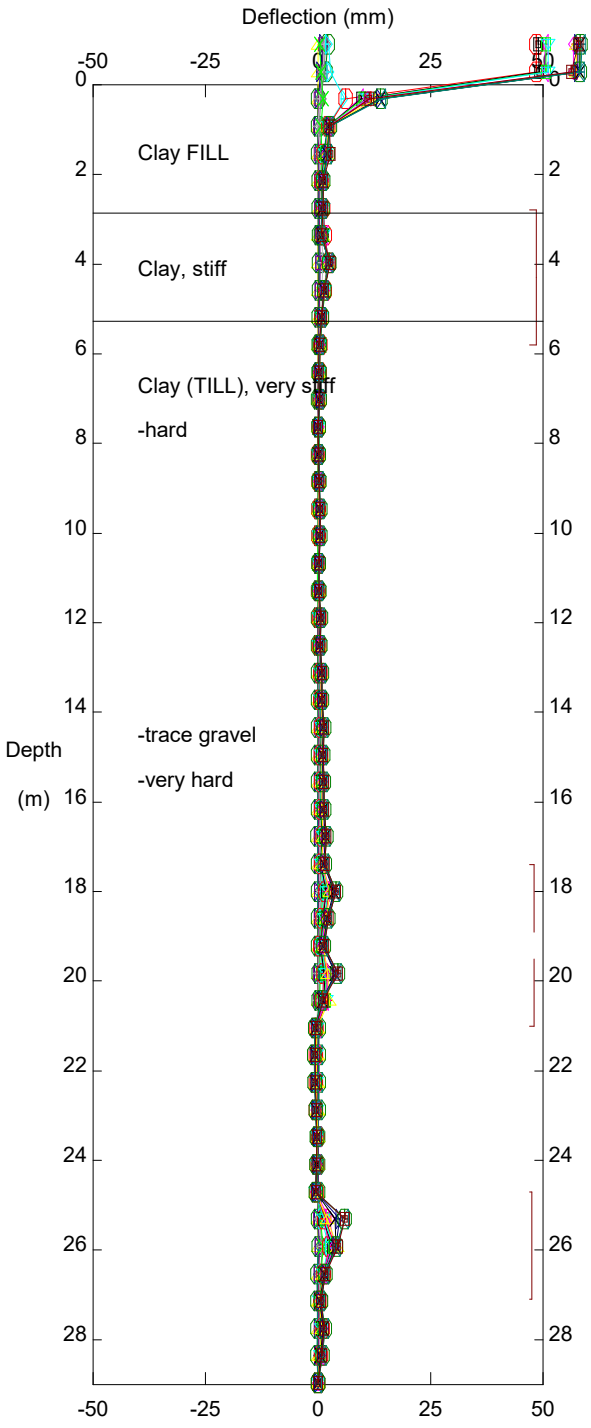


Cumulative Deflection

Direction A



Incremental Deflection

Direction A

Peace River East Hill PH070, Inclinometer SI14-2

Alberta Transportation

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

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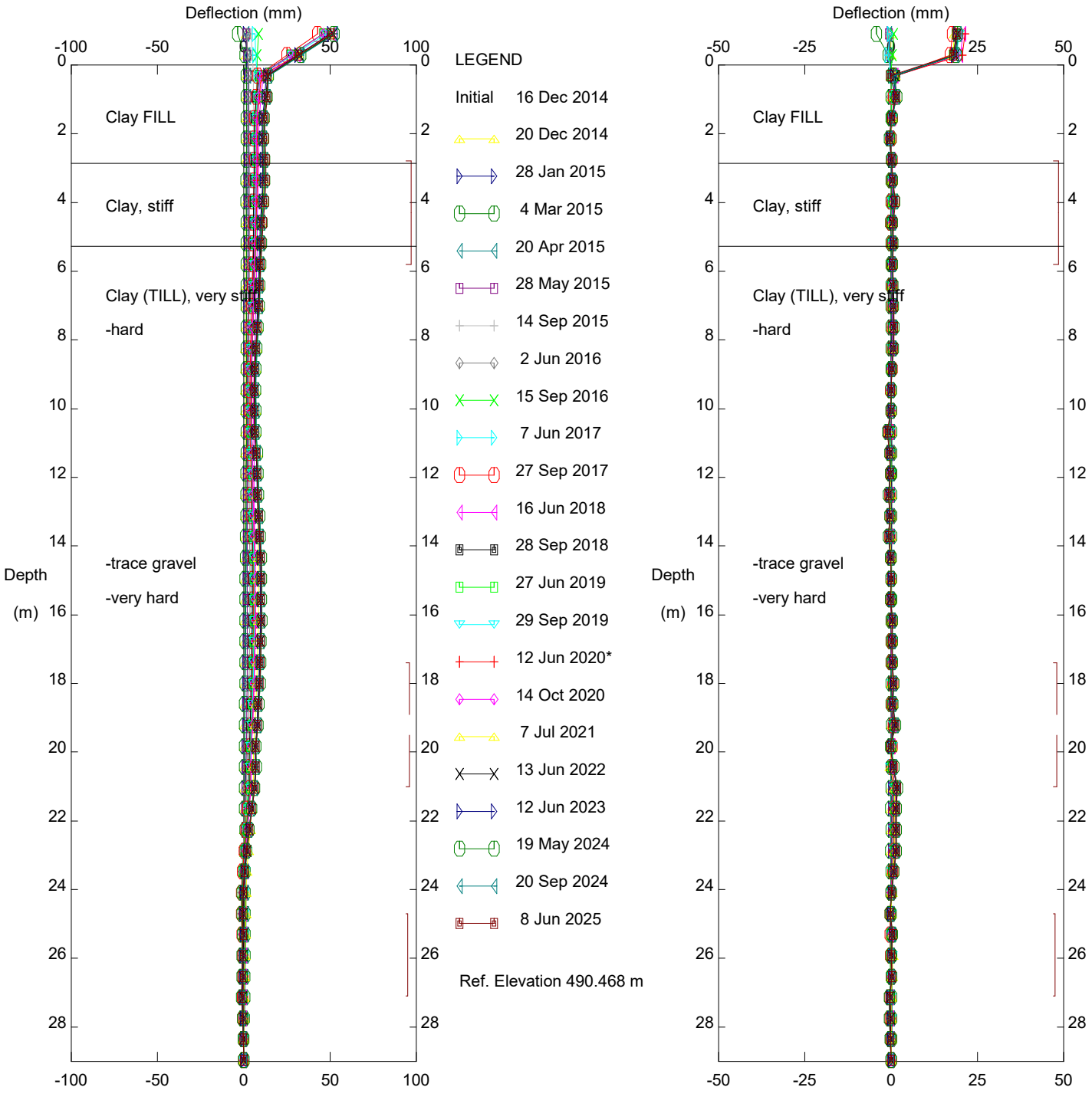

Cumulative Deflection

Direction B

Incremental Deflection

Direction B

Peace River East Hill PH070, Inclinometer SI14-2

Alberta Transportation

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

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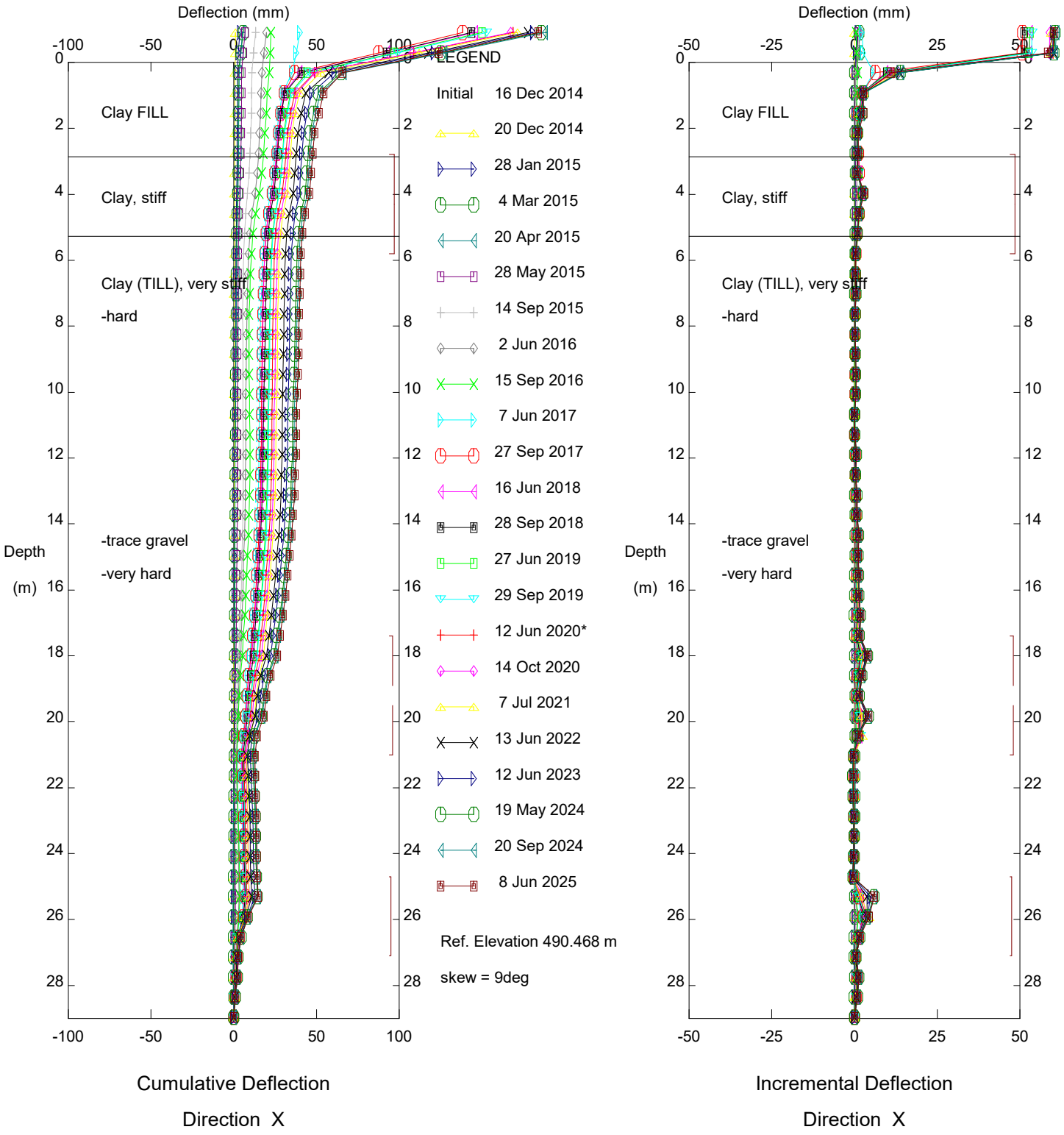

Cumulative Deflection

Direction X

Incremental Deflection

Direction X

Peace River East Hill PH070, Inclinometer SI14-2

Alberta Transportation

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

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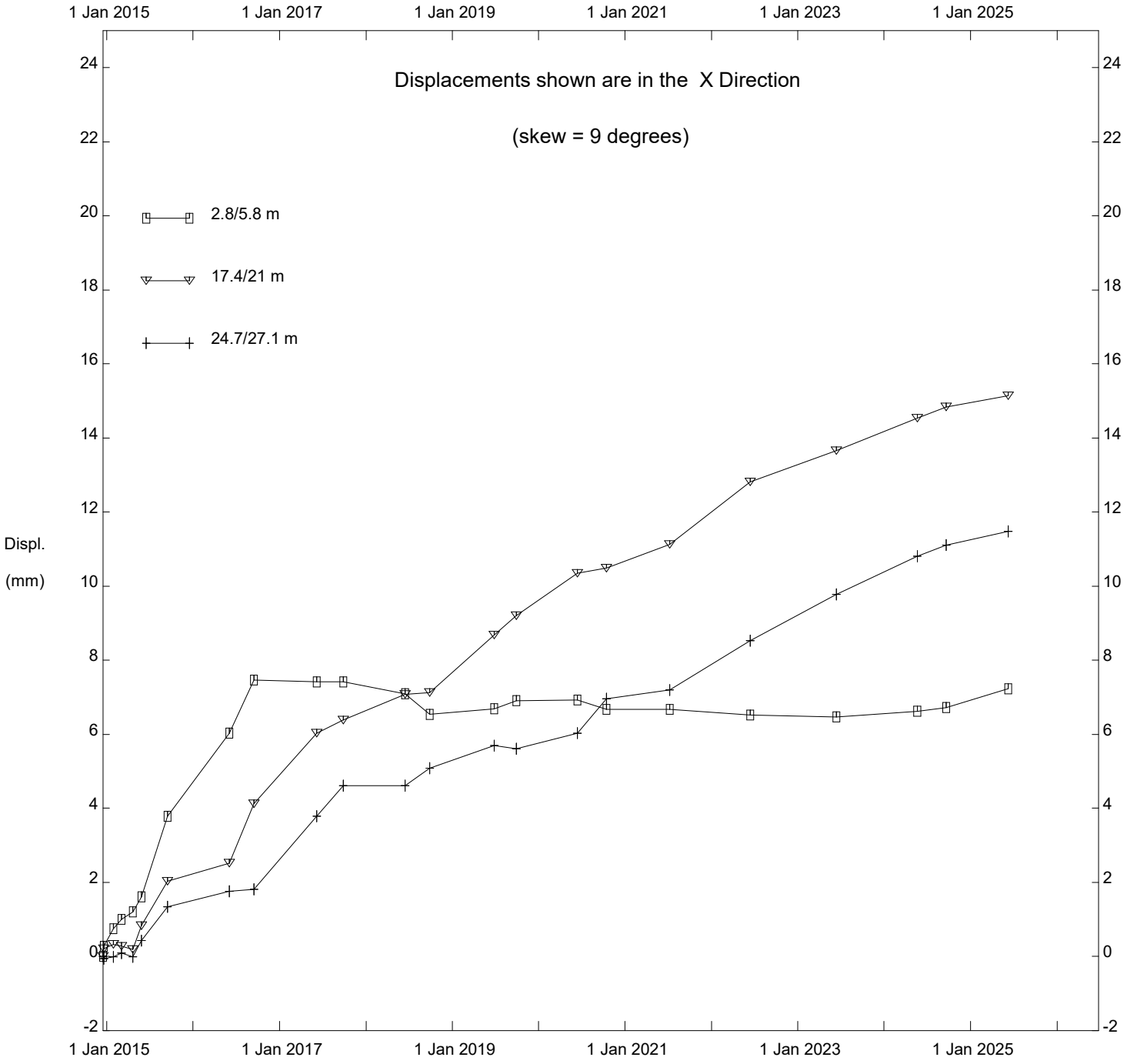
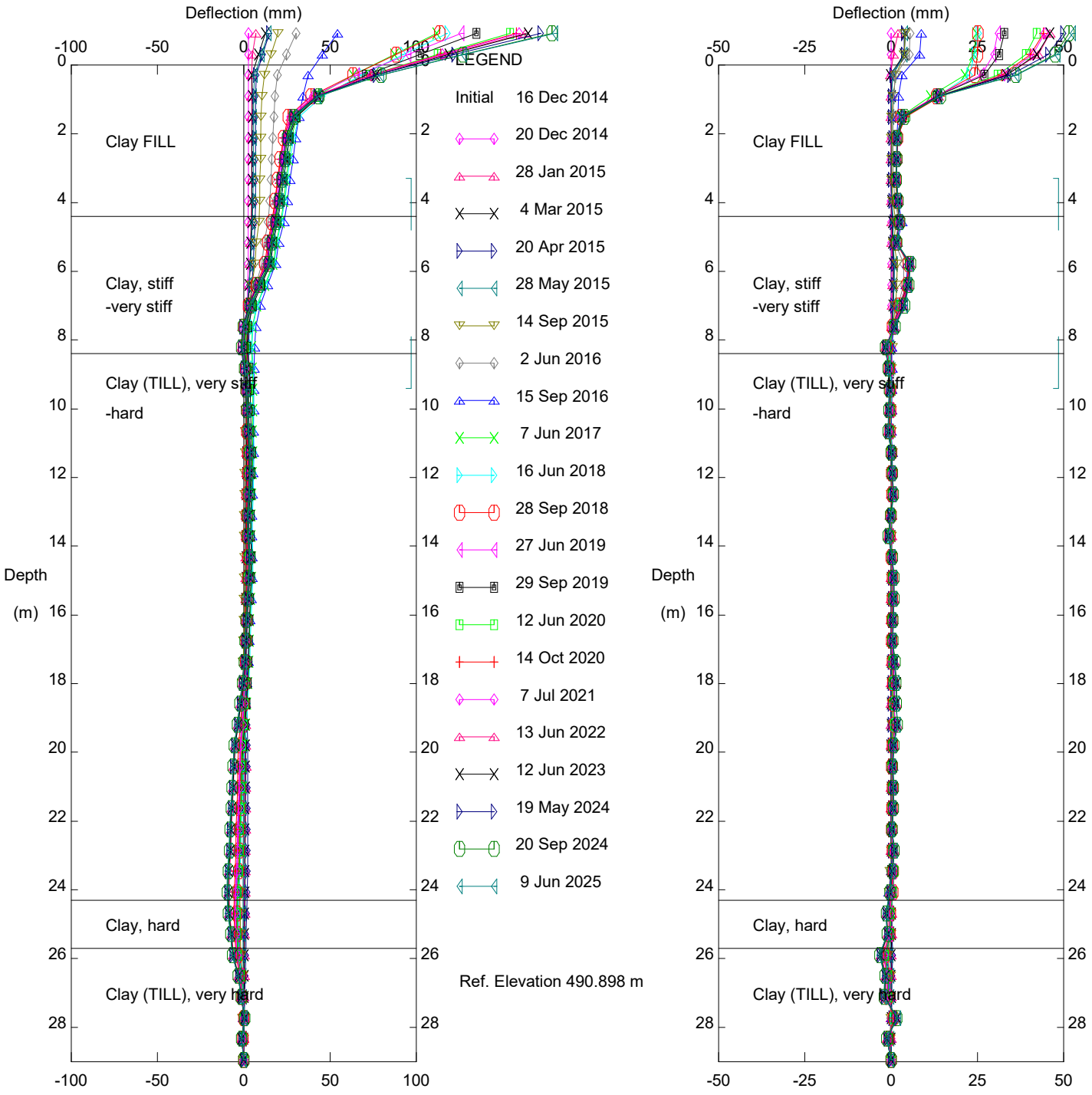


Peace River East Hill PH070, Inclinometer SI14-2

Alberta Transportation

Thurber Engineering Ltd.



Cumulative Deflection

Direction A

Incremental Deflection

Direction A

Peace River East Hill PH070, Inclinometer SI14-3

Alberta Transportation

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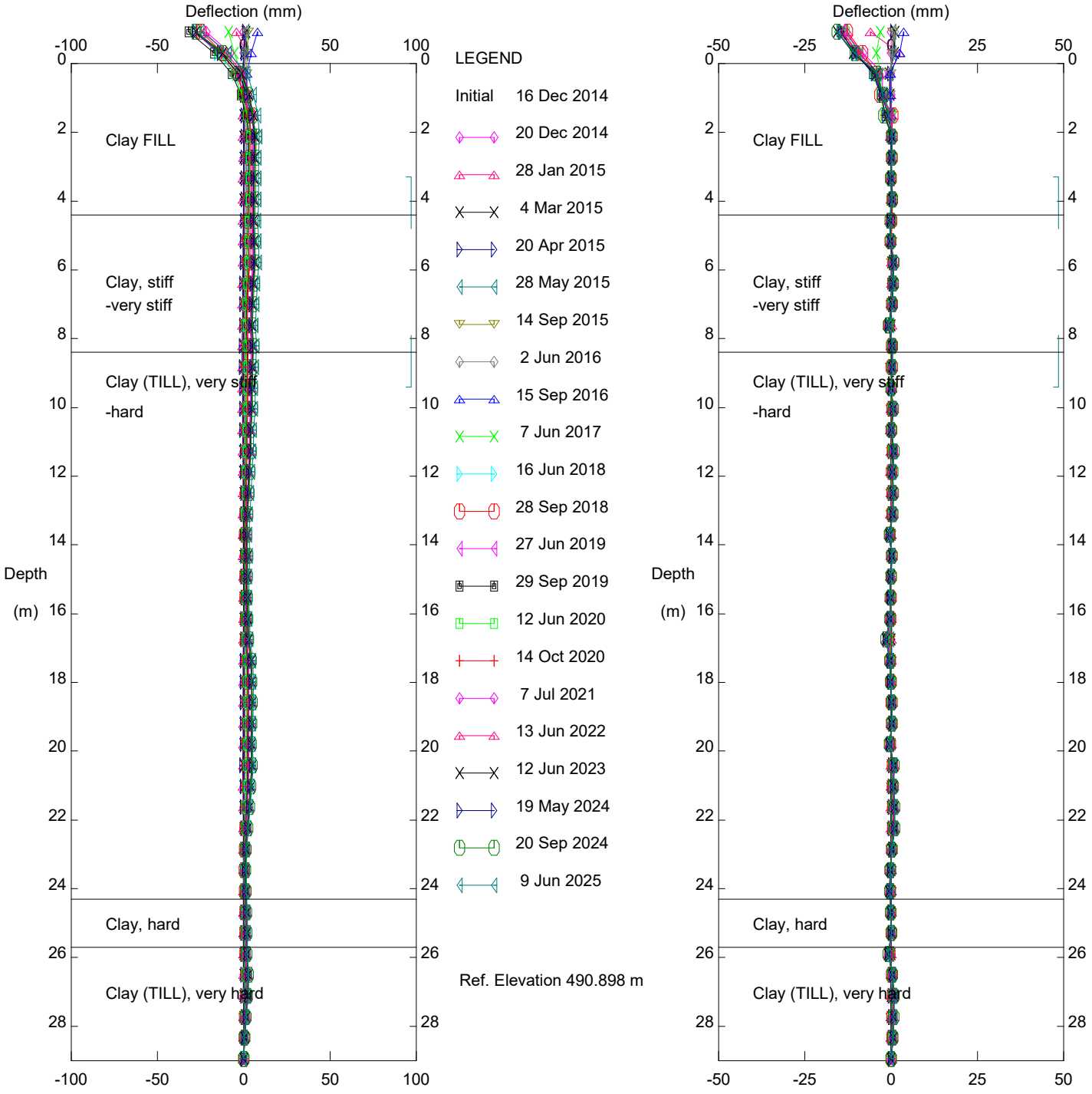

Cumulative Deflection

Direction B

Incremental Deflection

Direction B

Peace River East Hill PH070, Inclinometer SI14-3

Alberta Transportation

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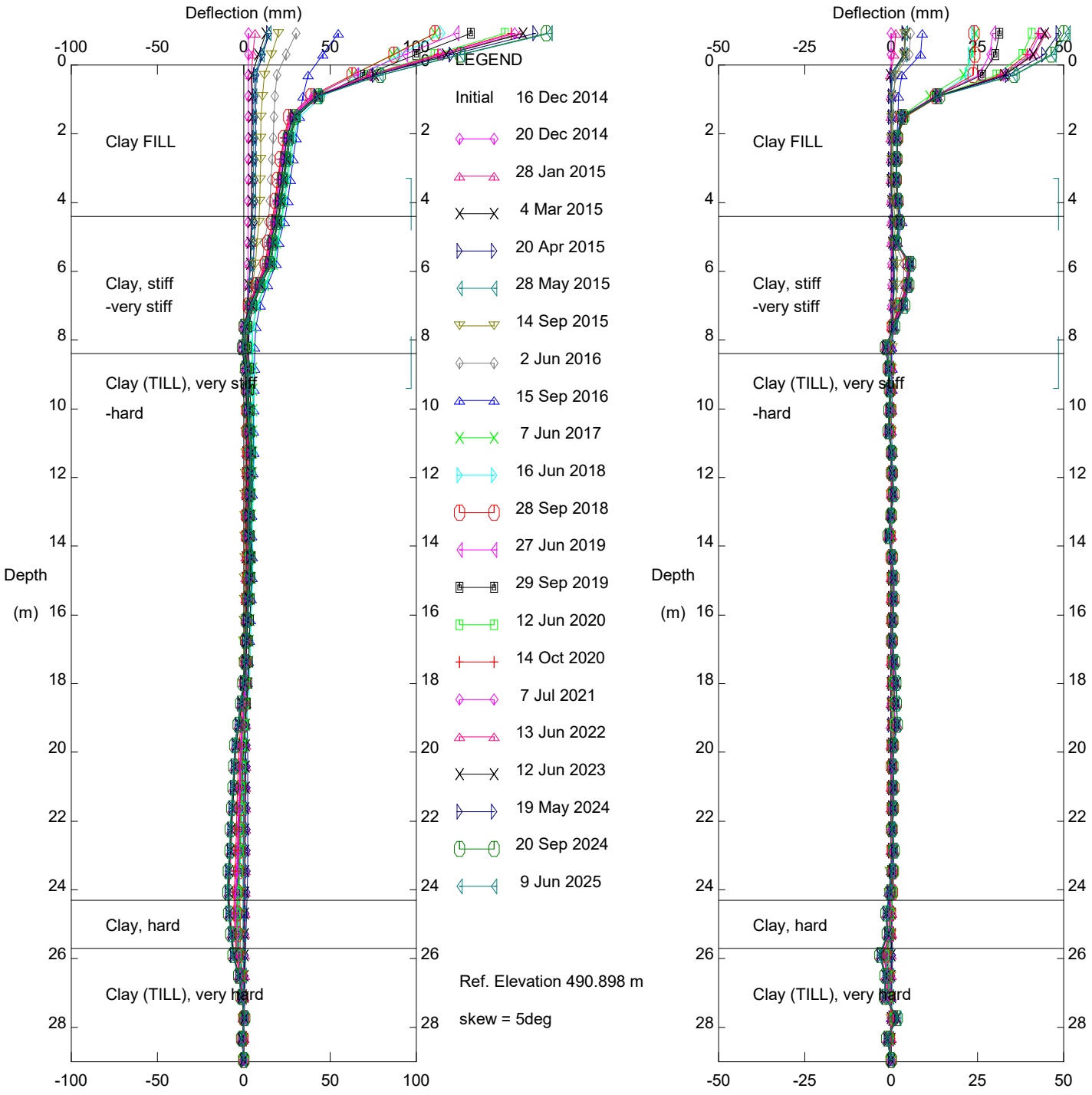

Cumulative Deflection

Direction X

Incremental Deflection

Direction X

Peace River East Hill PH070, Inclinometer SI14-3

Alberta Transportation

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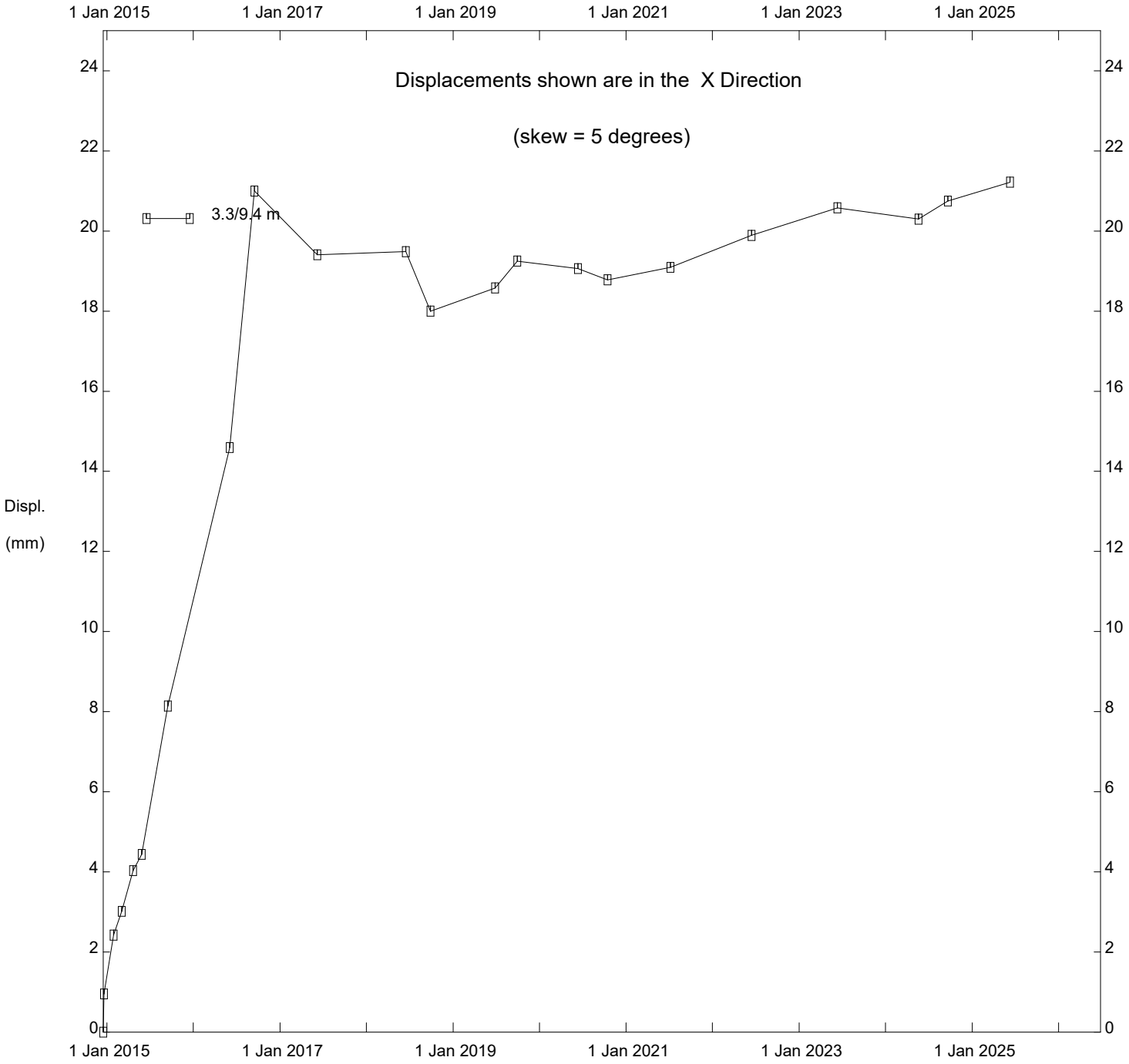

Peace River East Hill PH070, Inclinometer SI14-3

Alberta Transportation

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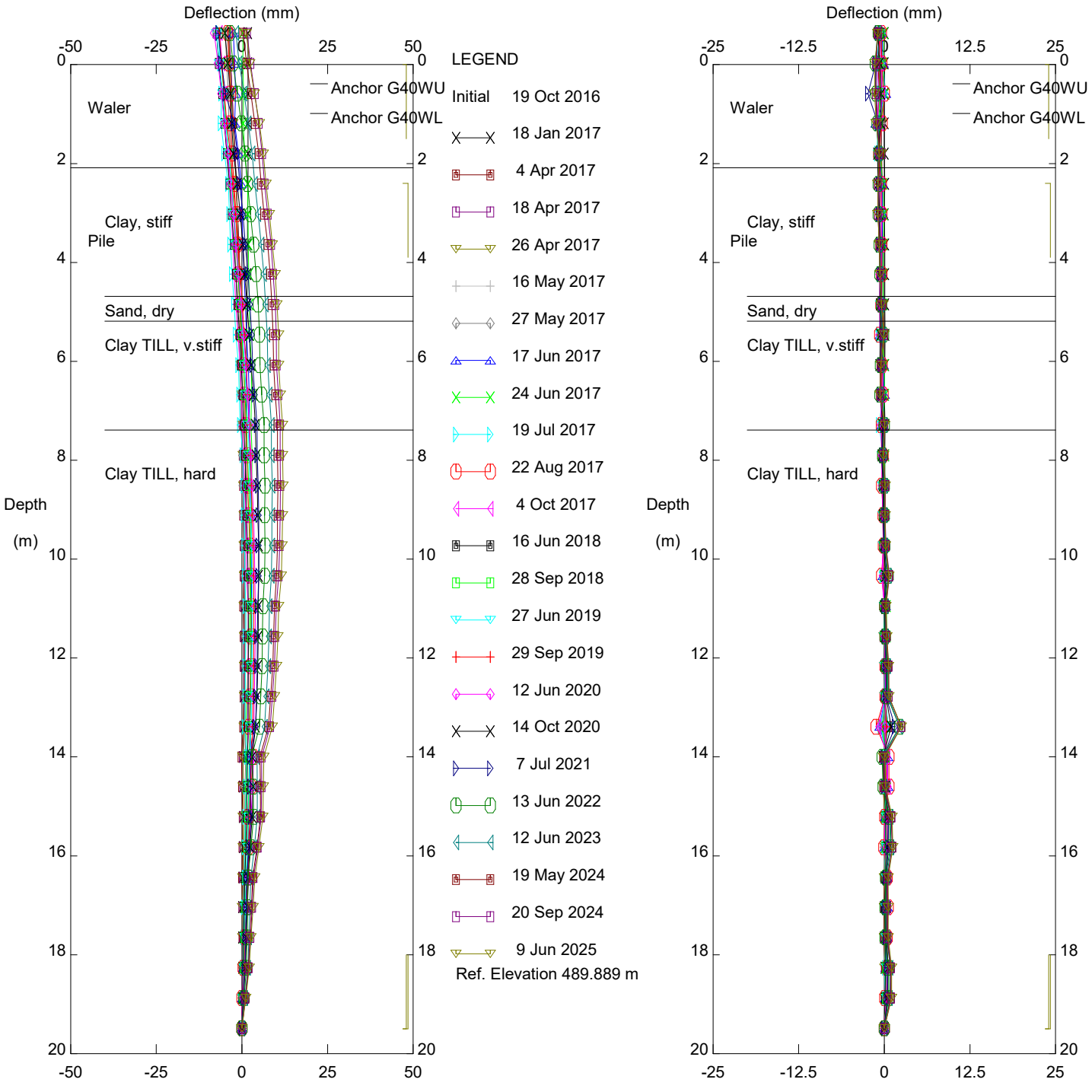

Cumulative Deflection

Direction A

Incremental Deflection

Direction A

Peace River East Hill PH070, Inclinometer P40

Alberta Transportation

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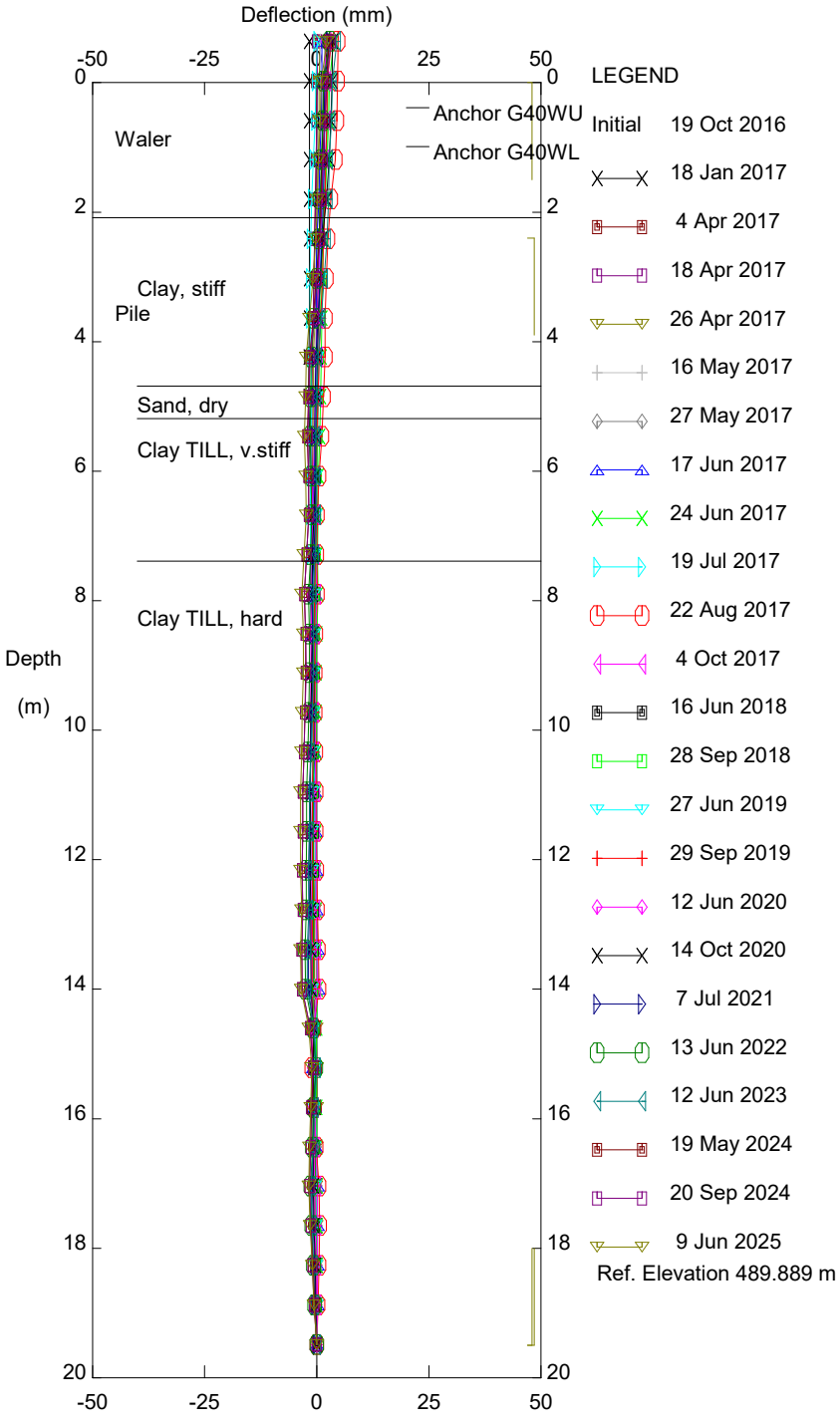
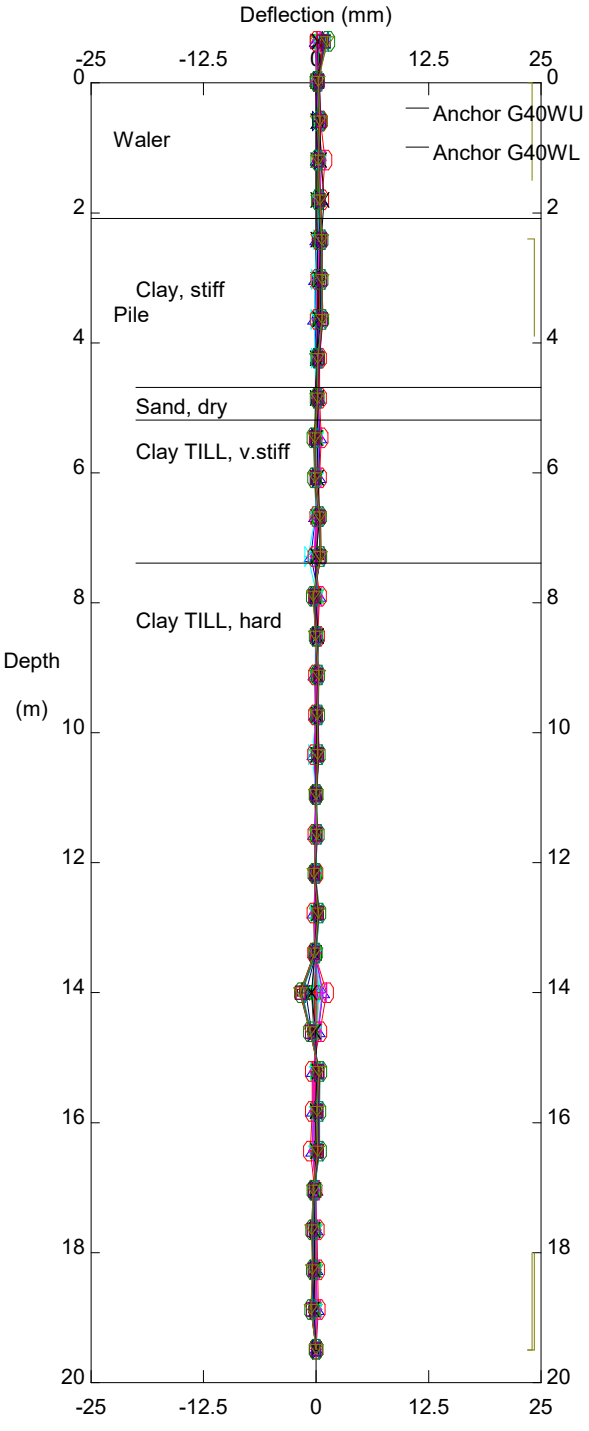


Cumulative Deflection

Direction B



Incremental Deflection

Direction B

Peace River East Hill PH070, Inclinometer P40

Alberta Transportation

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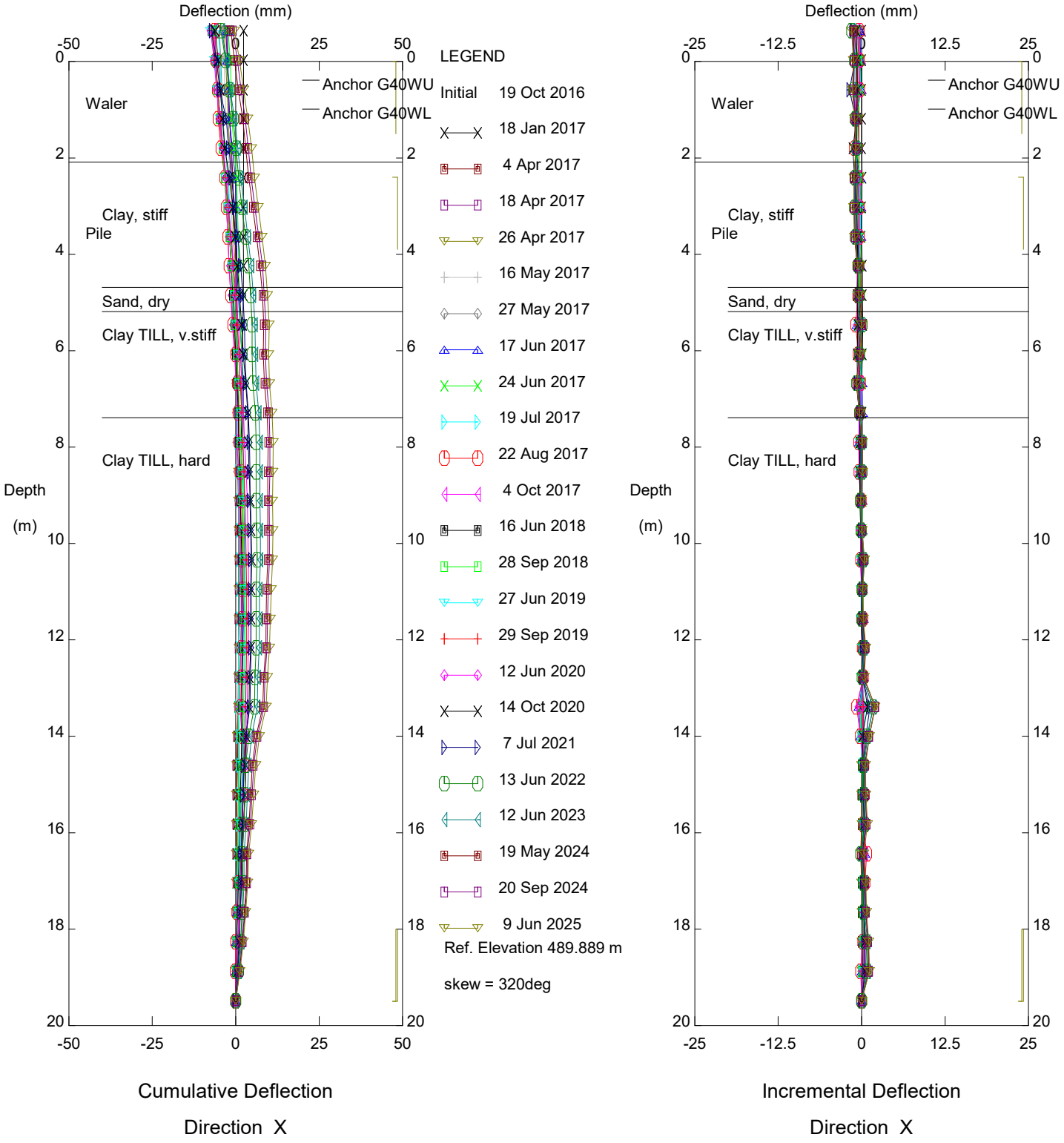

Cumulative Deflection

Direction X

Incremental Deflection

Direction X

Peace River East Hill PH070, Inclinometer P40

Alberta Transportation

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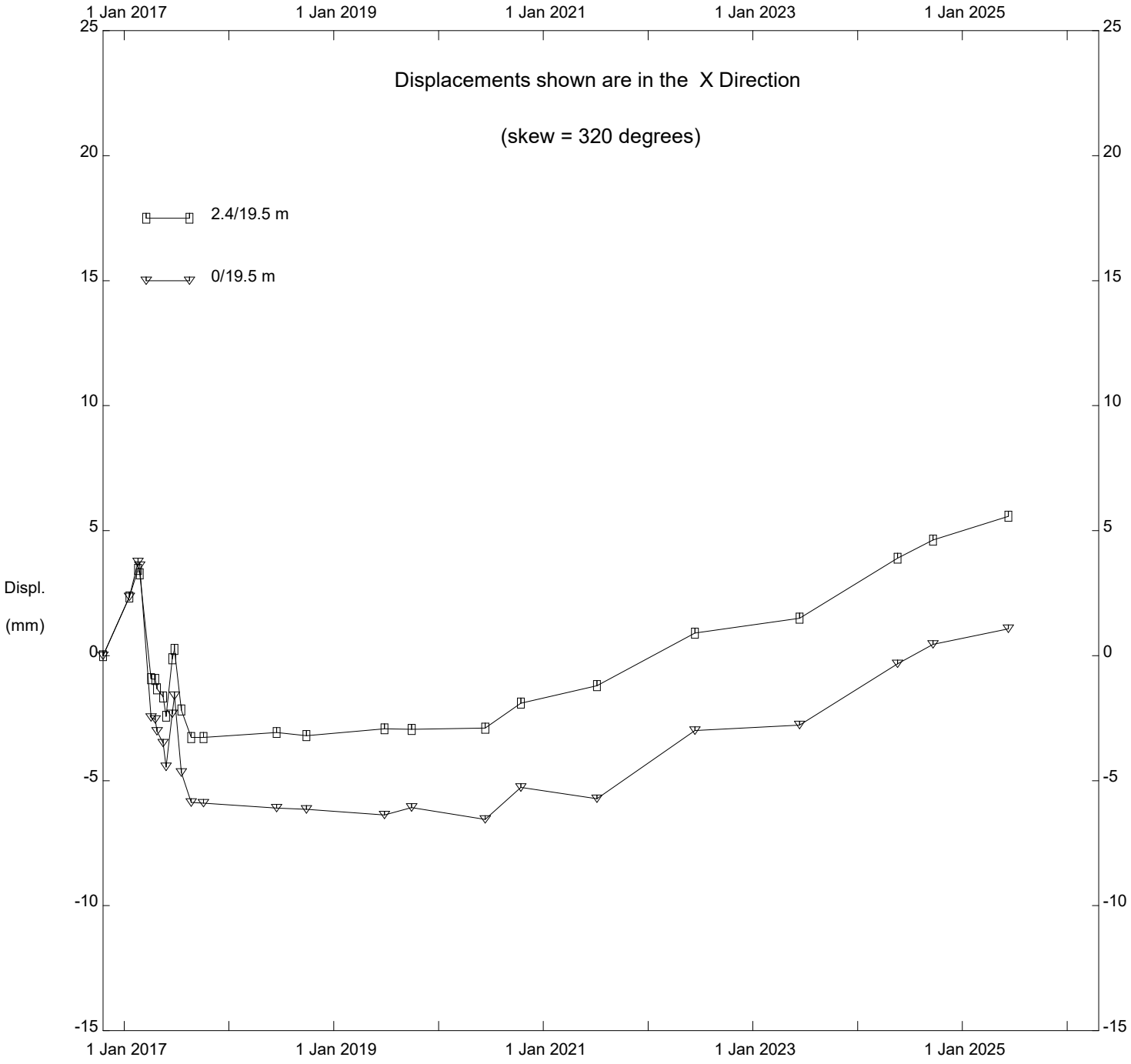
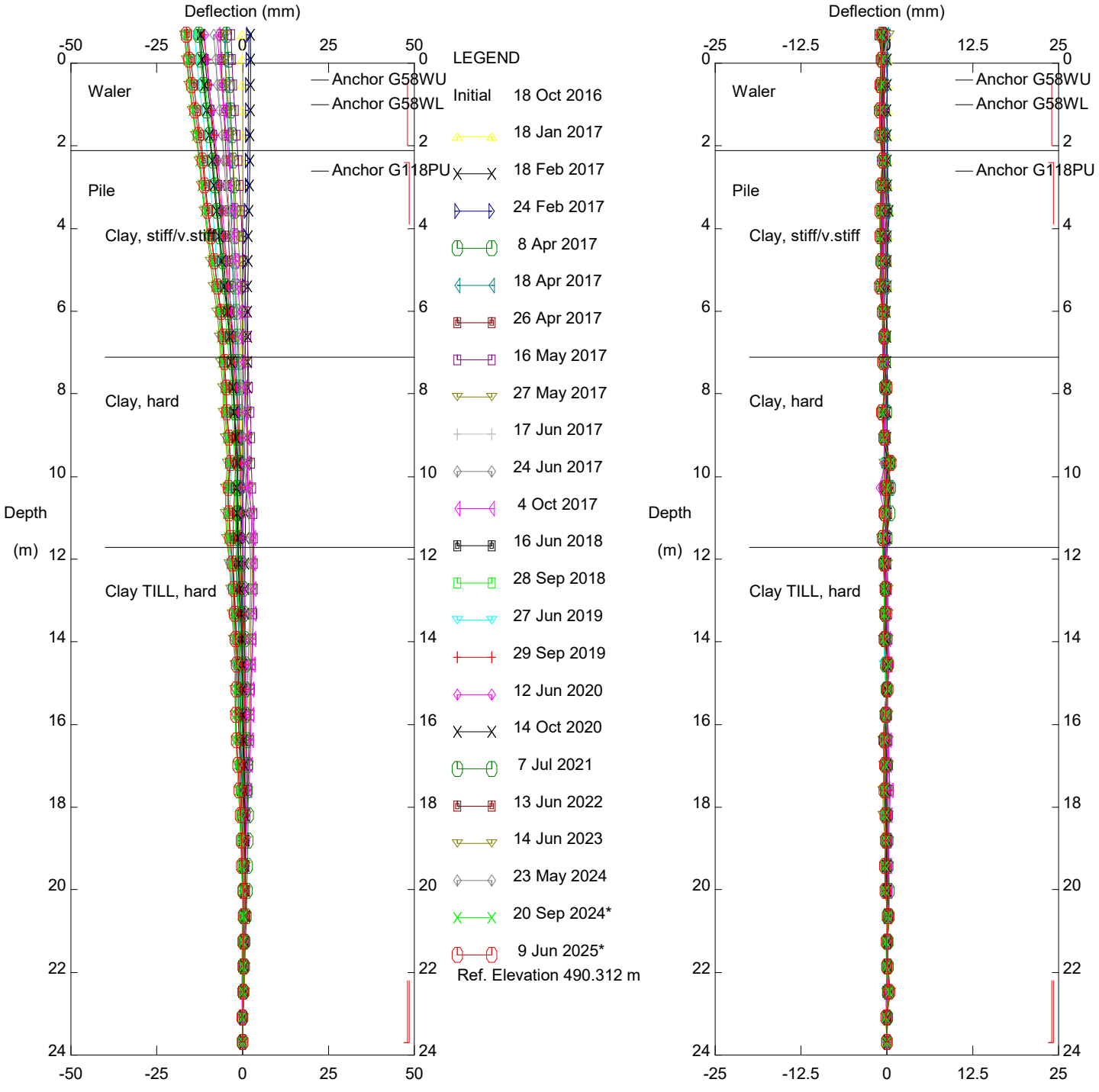
Thurber Engineering Ltd.



Peace River East Hill PH070, Inclinometer P40

Alberta Transportation

Thurber Engineering Ltd.



Cumulative Deflection

Direction A

Incremental Deflection

Direction A

Peace River East Hill PH070, Inclinometer P58

Alberta Transportation

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

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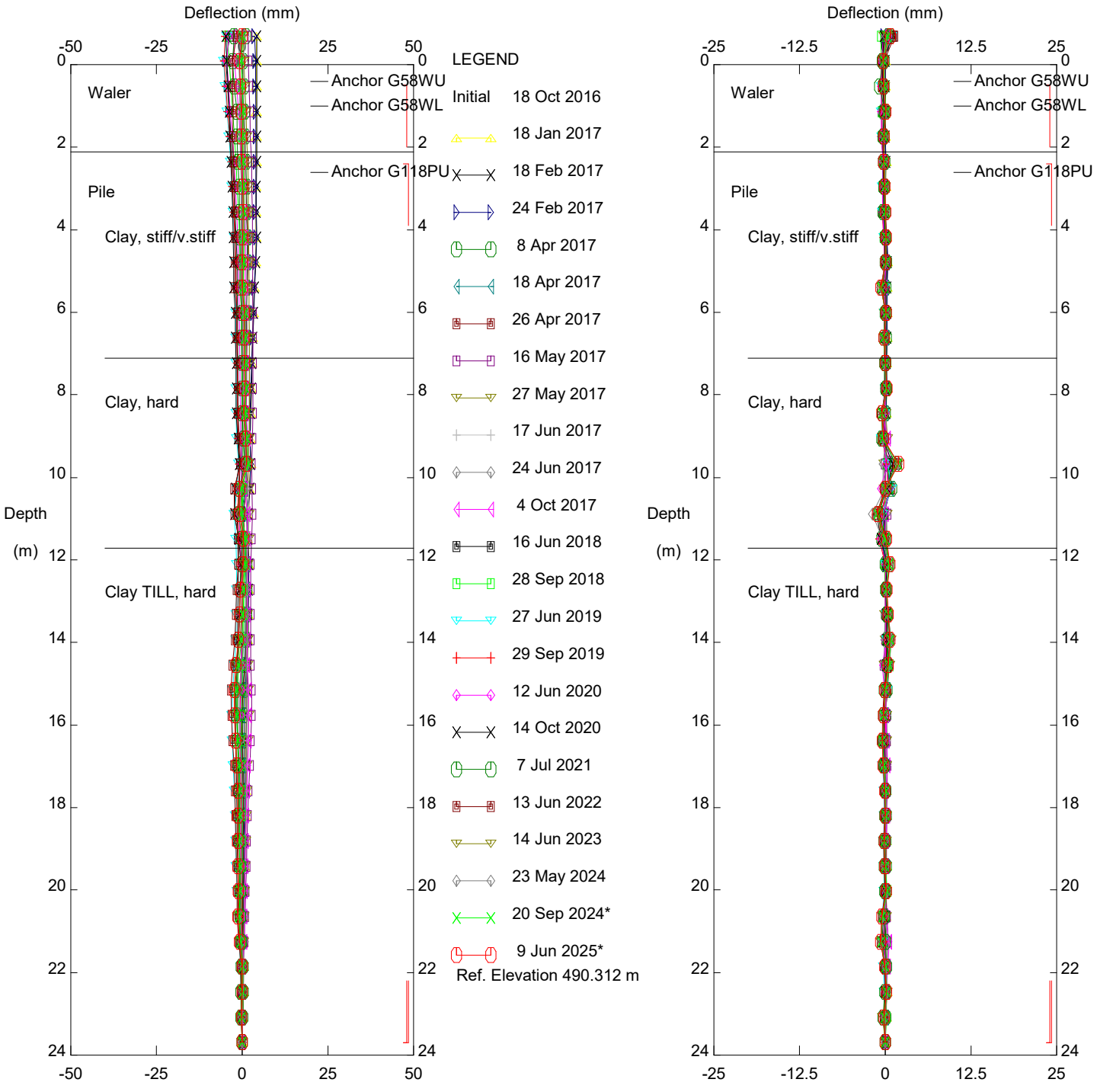
Thurber Engineering Ltd.



Cumulative Deflection

Direction B

Incremental Deflection

Direction B

Peace River East Hill PH070, Inclinometer P58

Alberta Transportation

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

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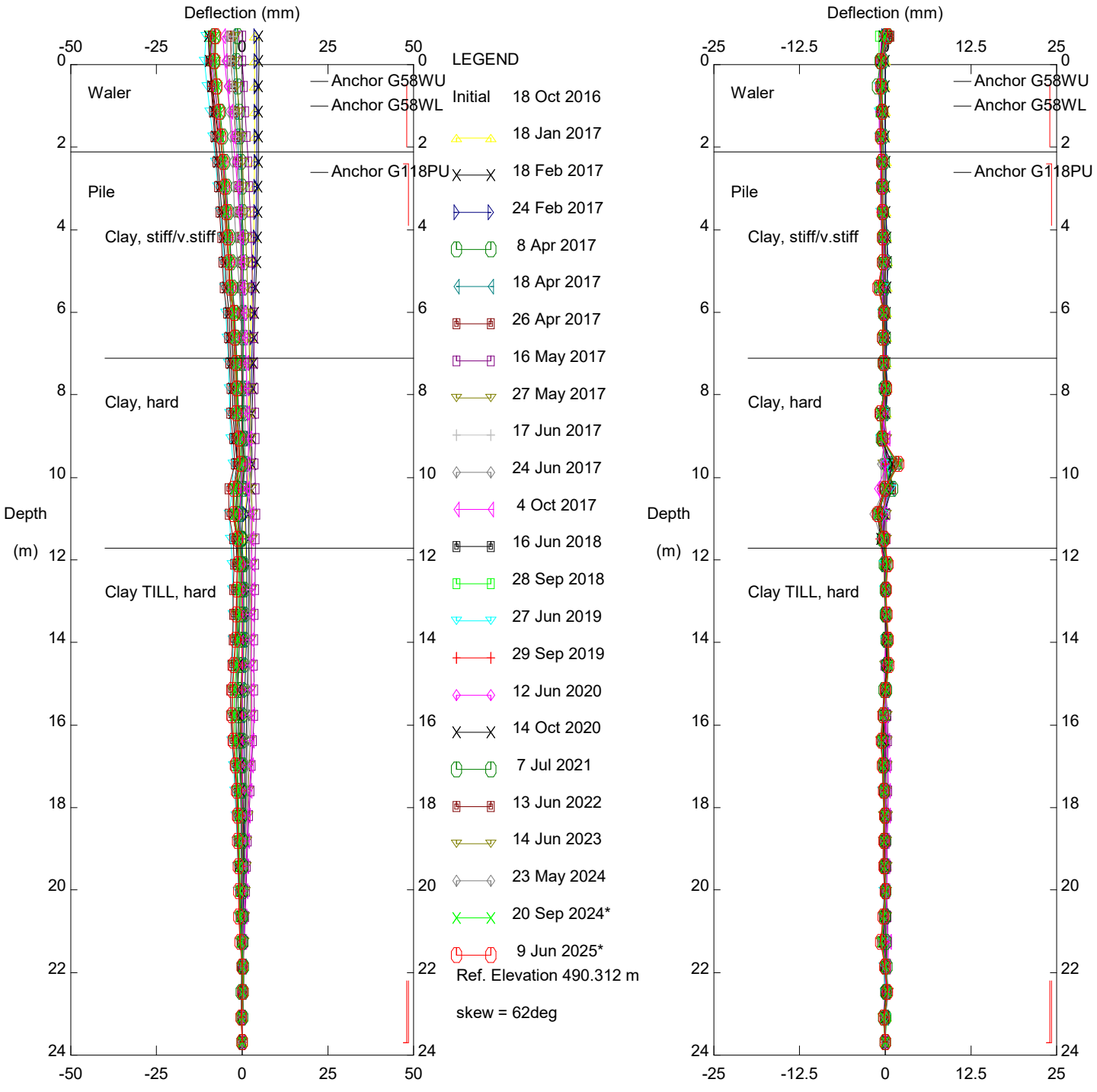
Thurber Engineering Ltd.



Cumulative Deflection

Direction X

Incremental Deflection

Direction X

Peace River East Hill PH070, Inclinometer P58

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\PH070\P58.gtl

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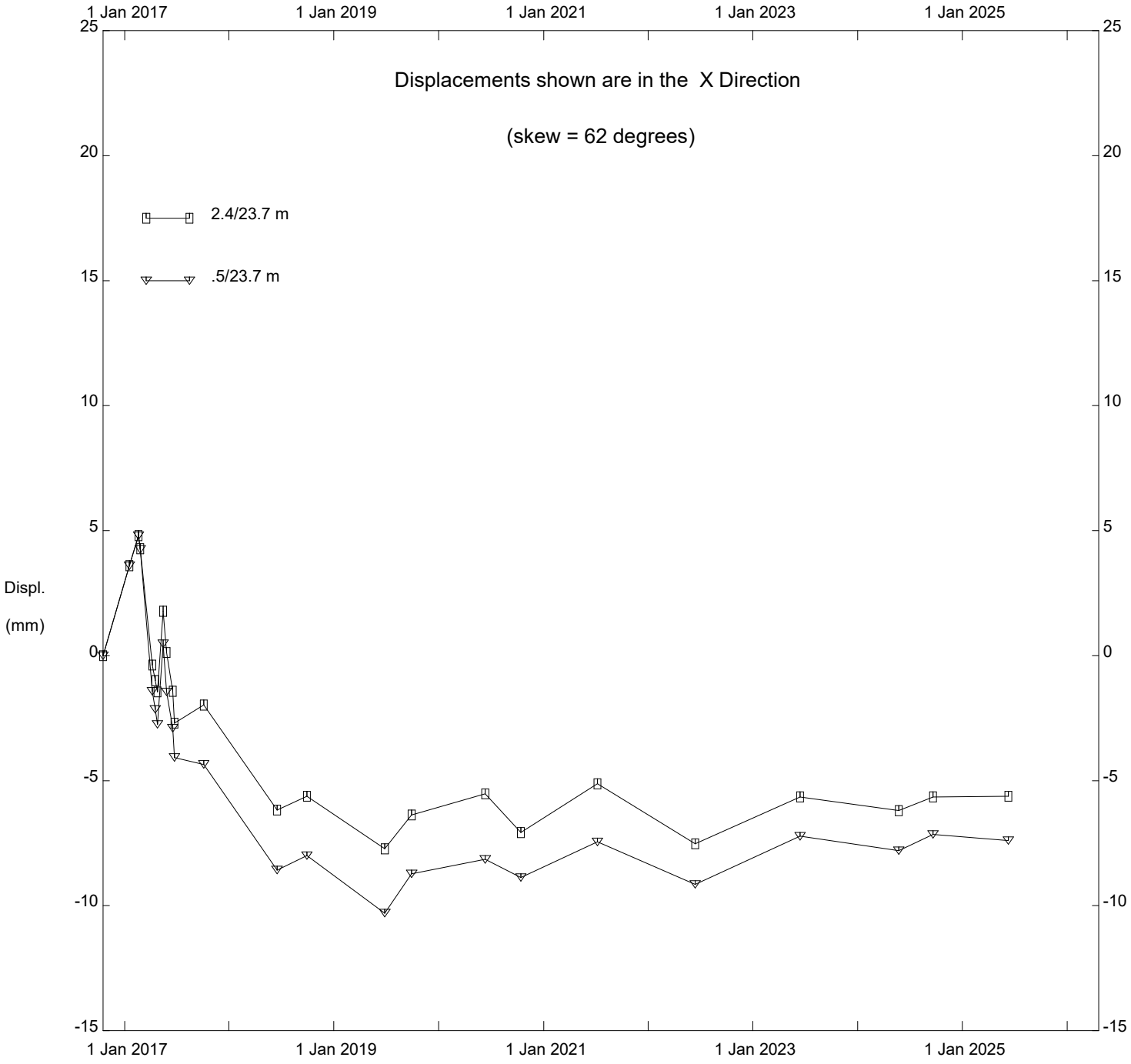
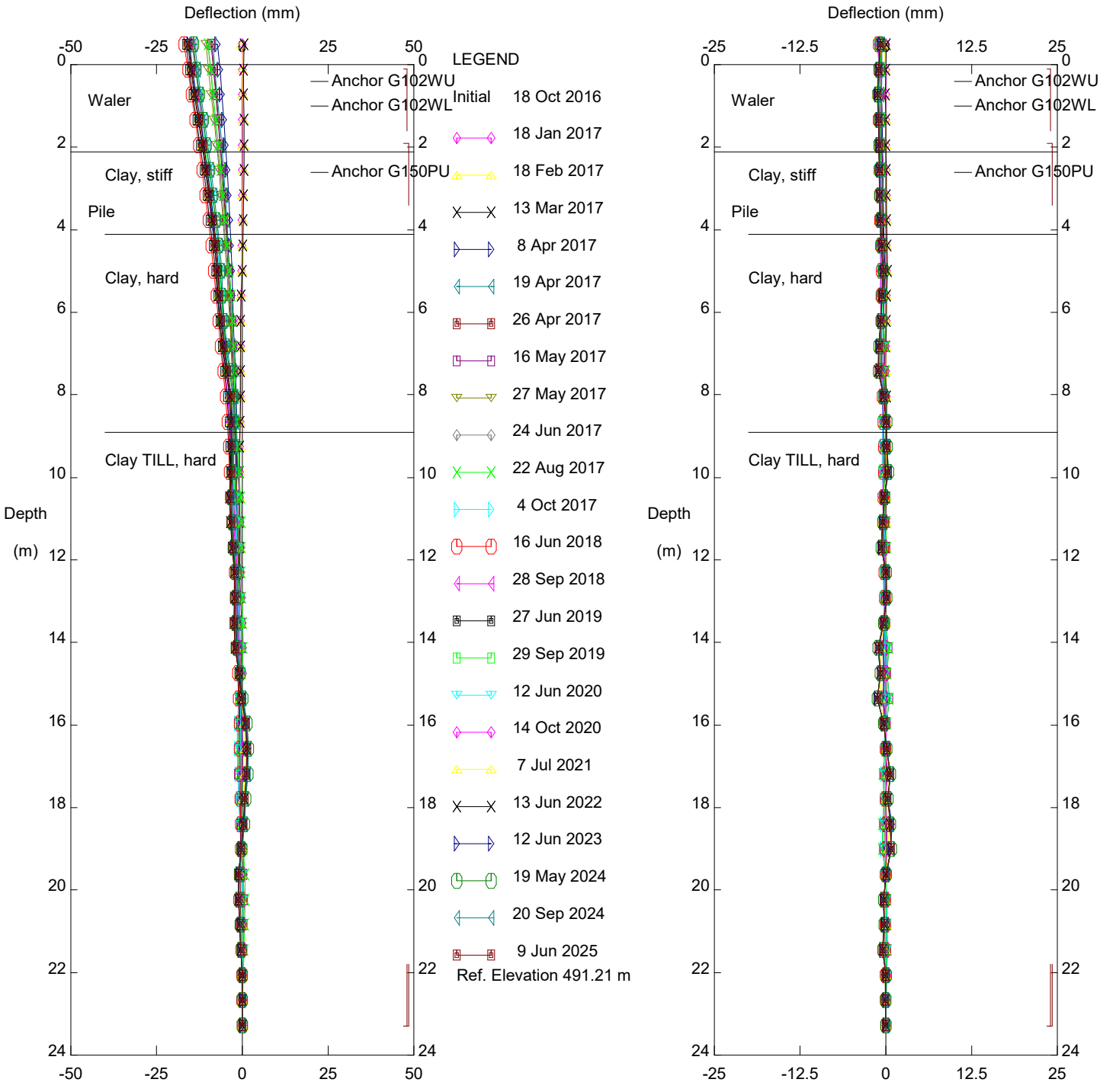


Peace River East Hill PH070, Inclinometer P58

Alberta Transportation

Thurber Engineering Ltd.



Cumulative Deflection

Direction A

Incremental Deflection

Direction A

Peace River East Hill PH070, Inclinometer P90

Alberta Transportation

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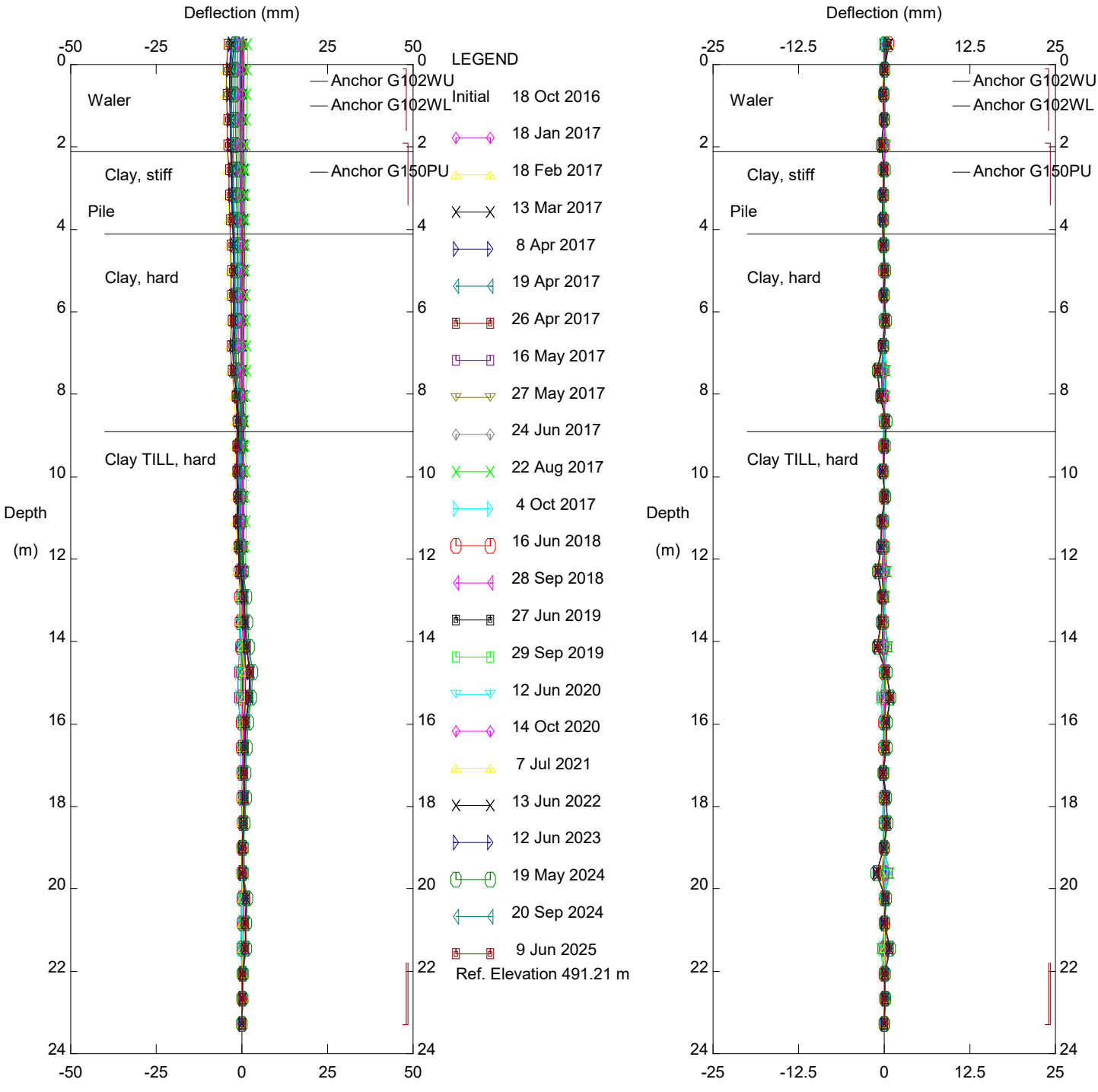

Cumulative Deflection

Direction B

Incremental Deflection

Direction B

Peace River East Hill PH070, Inclinometer P90

Alberta Transportation

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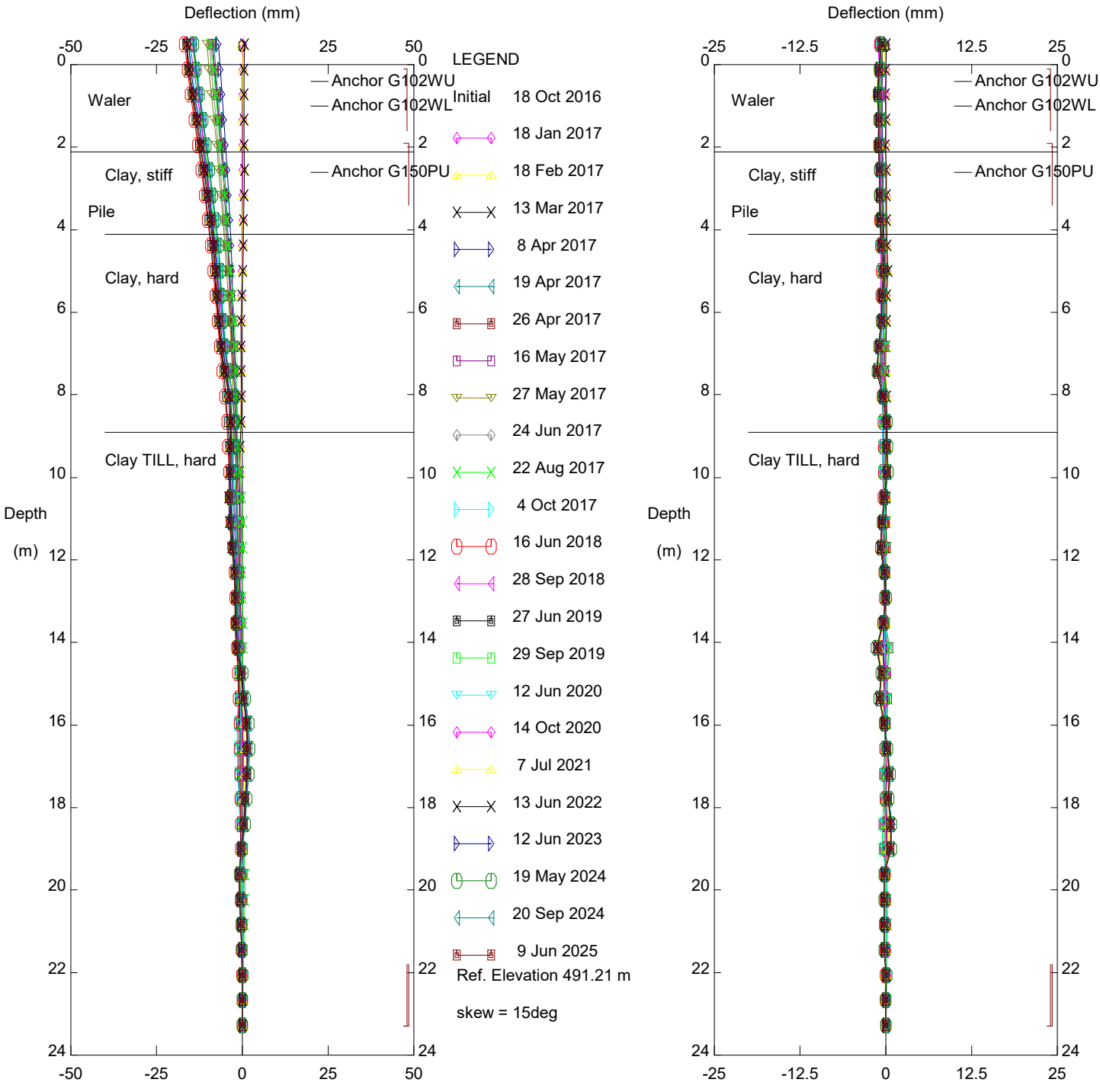

Cumulative Deflection

Direction X

Incremental Deflection

Direction X

Peace River East Hill PH070, Inclinometer P90

Alberta Transportation

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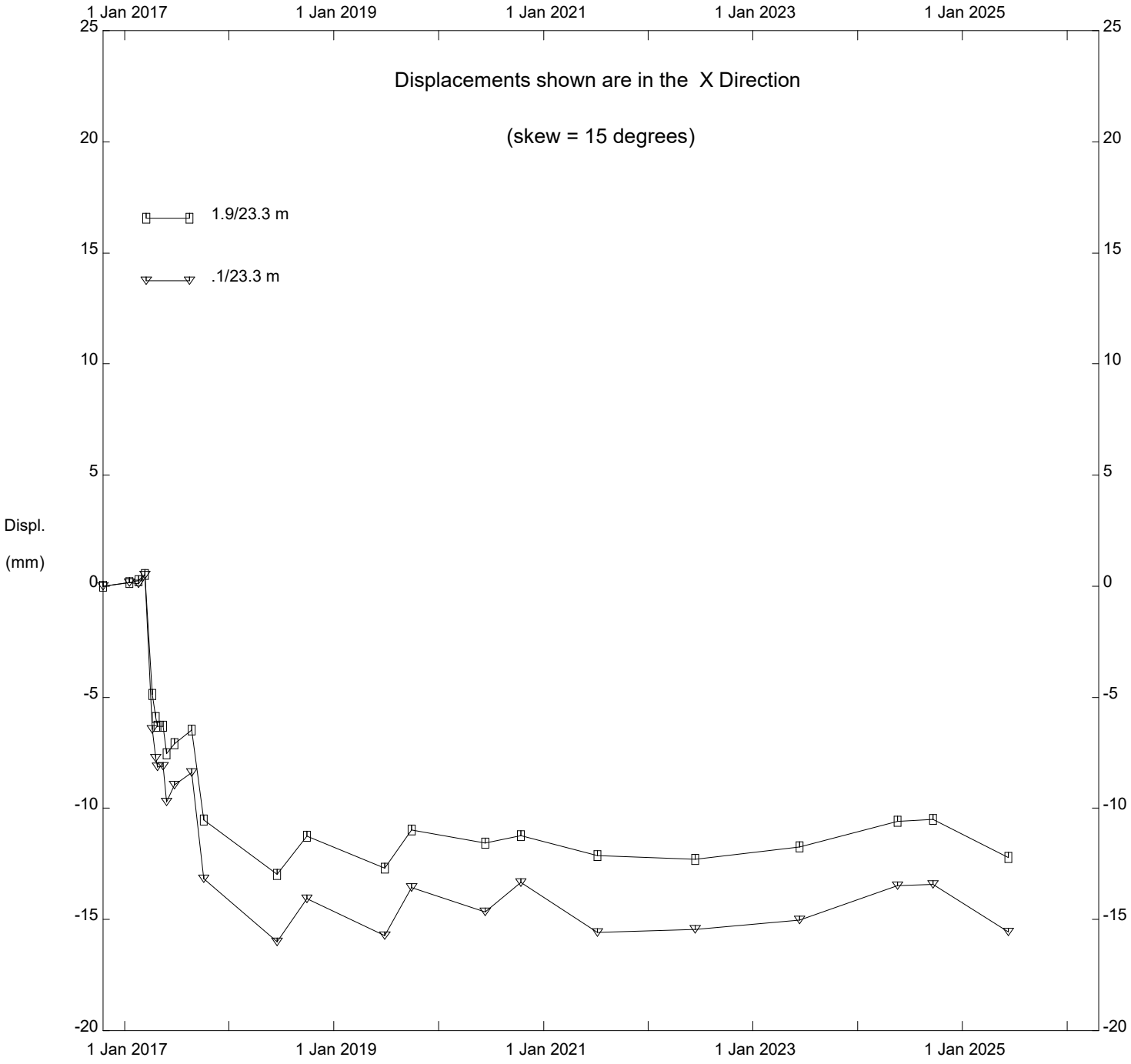

Peace River East Hill PH070, Inclinometer P90

Alberta Transportation

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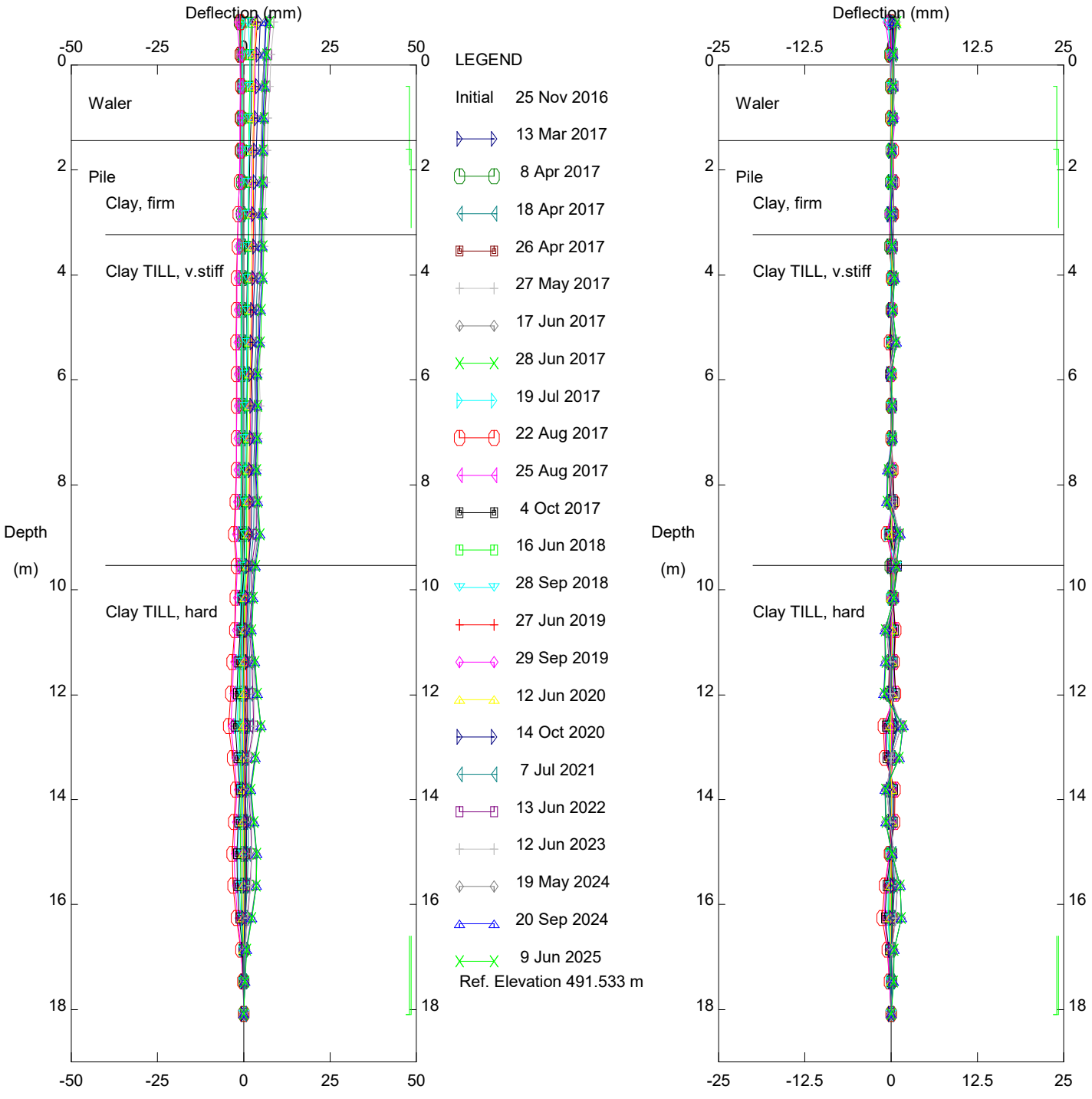

Cumulative Deflection

Direction A

Incremental Deflection

Direction A

Peace River East Hill PH070, Inclinometer P116

Alberta Transportation

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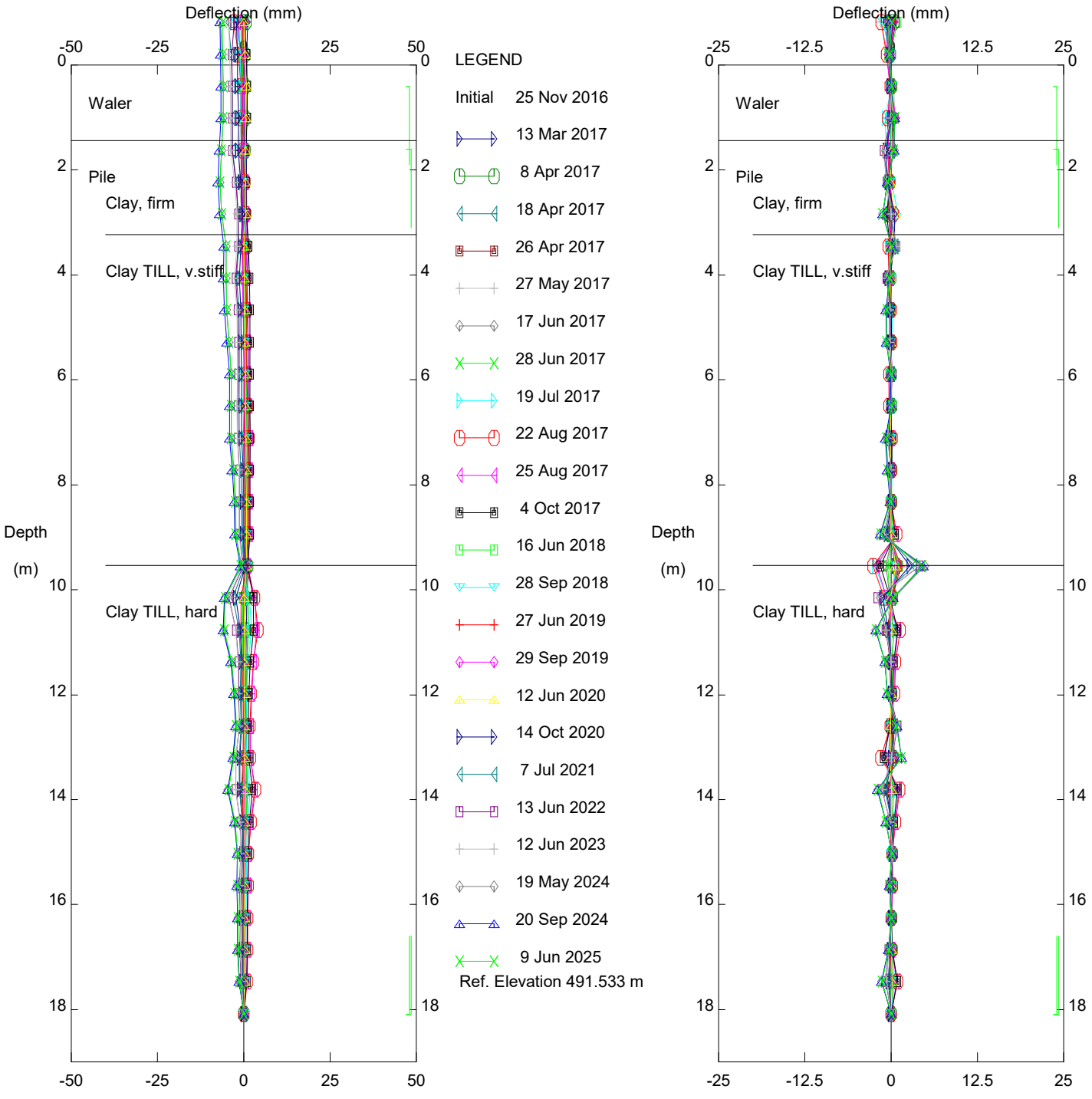
Thurber Engineering Ltd.



Cumulative Deflection

Direction B

Incremental Deflection

Direction B

Peace River East Hill PH070, Inclinometer P116

Alberta Transportation

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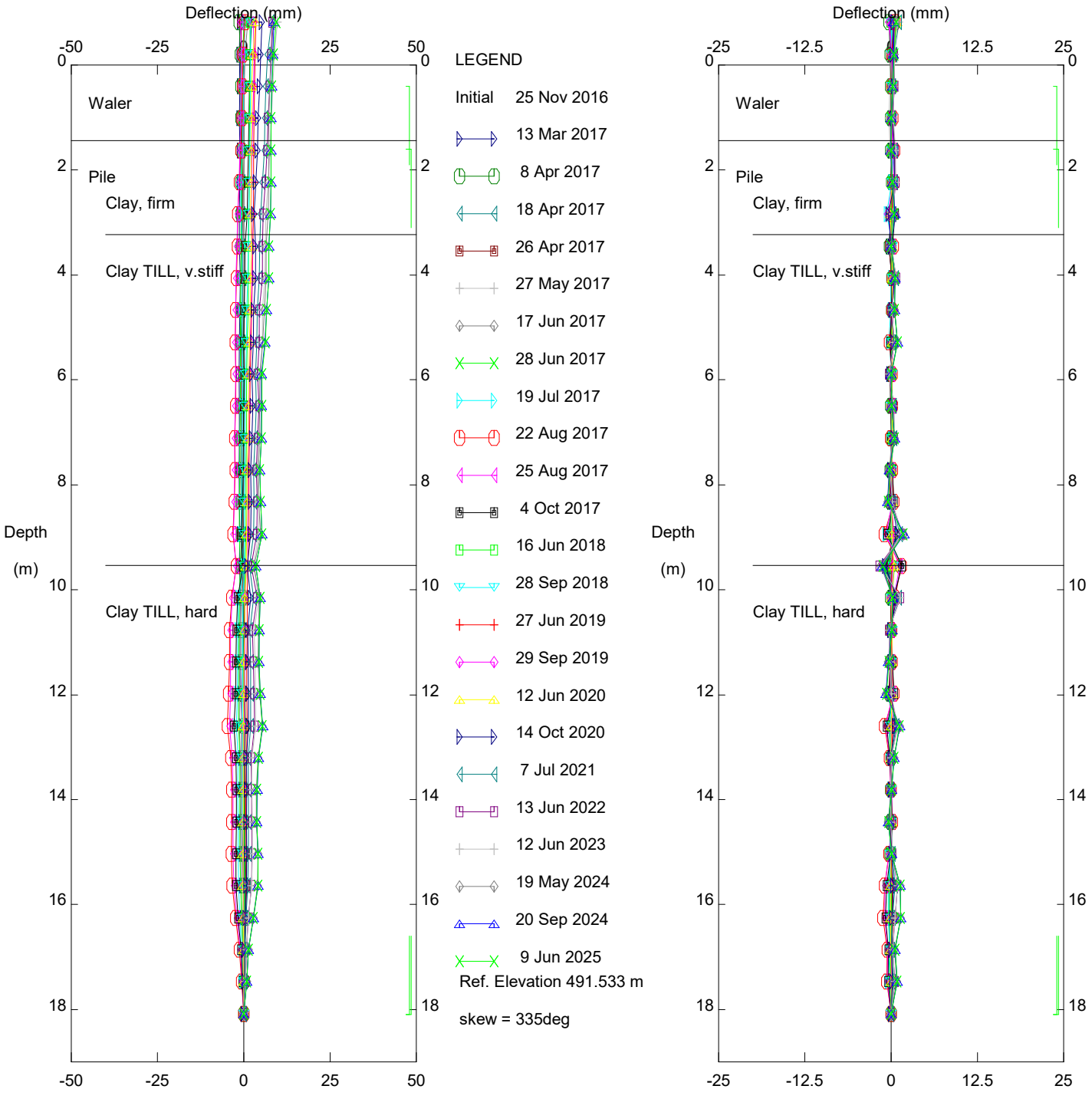

Cumulative Deflection

Direction X

Incremental Deflection

Direction X

Peace River East Hill PH070, Inclinometer P116

Alberta Transportation

G:\32000\32121 AT GRMP Peace River District 2021-2025\Section C\2025A-Spring\SI Readings\PH070\P116.gtl

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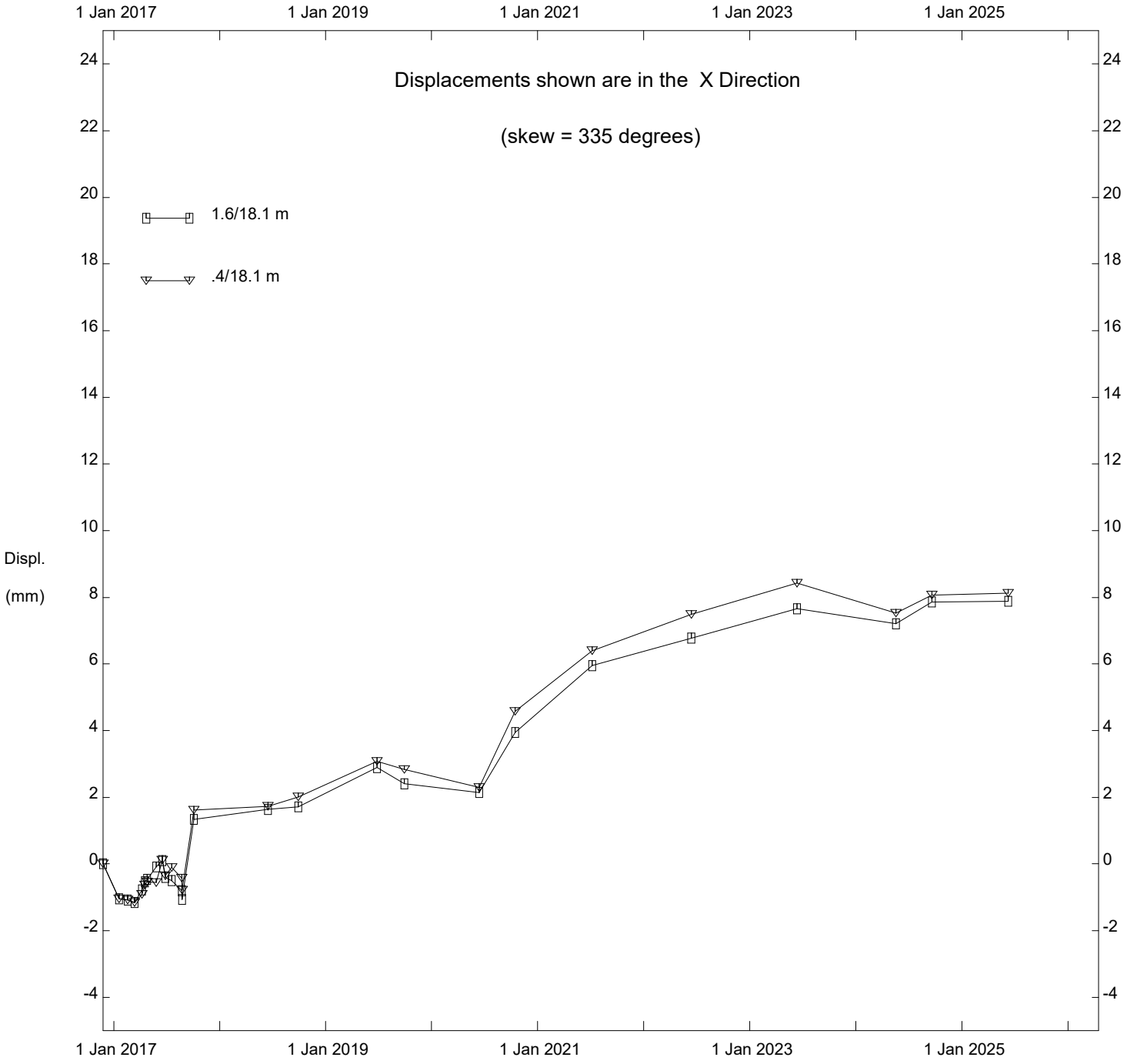

Peace River East Hill PH070, Inclinometer P116

Alberta Transportation

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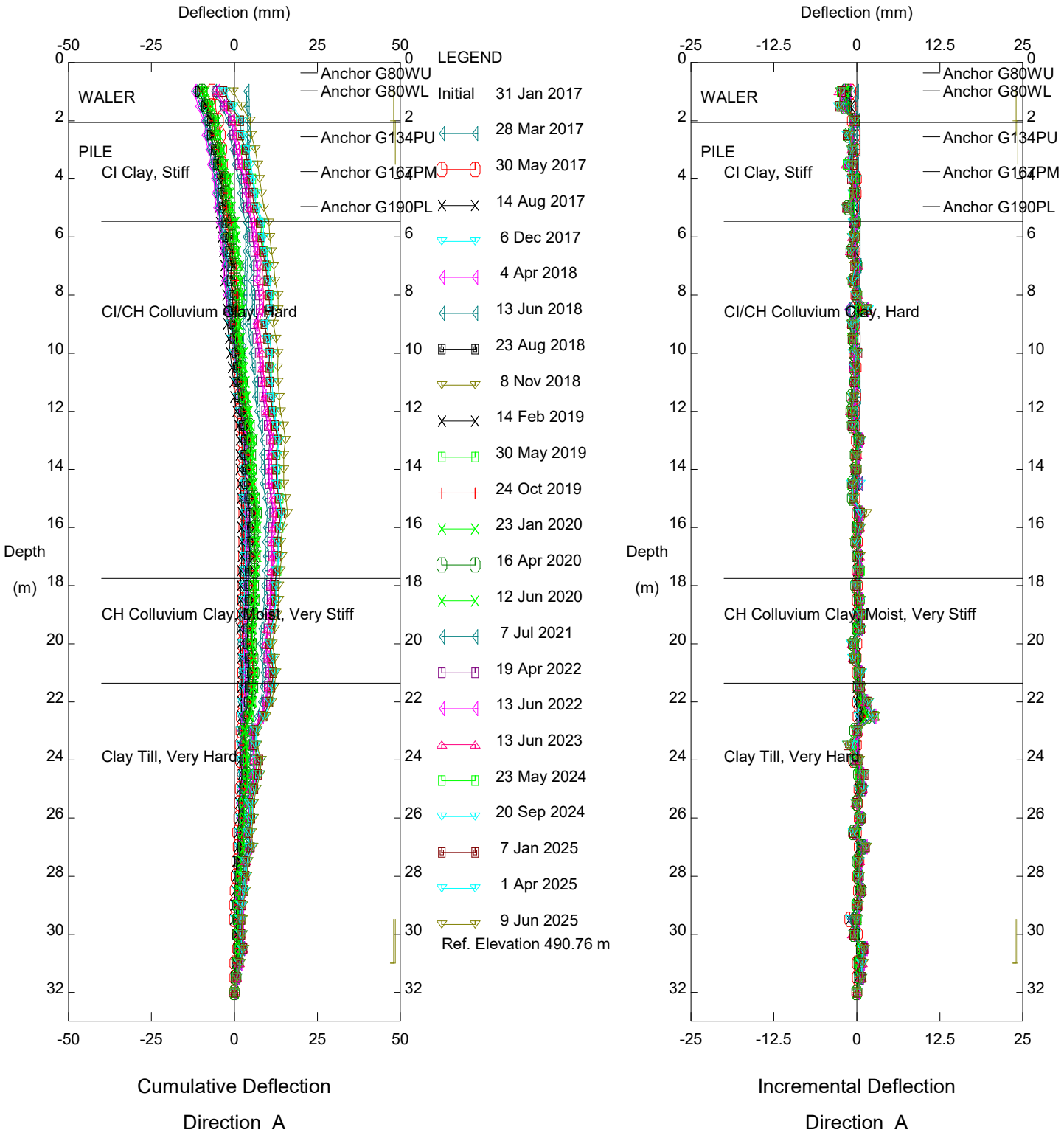

Cumulative Deflection

Direction A

Incremental Deflection

Direction A

PH070 Hwy 2:60 East Hill, Inclinometer SAA-P74

Alberta Transportation

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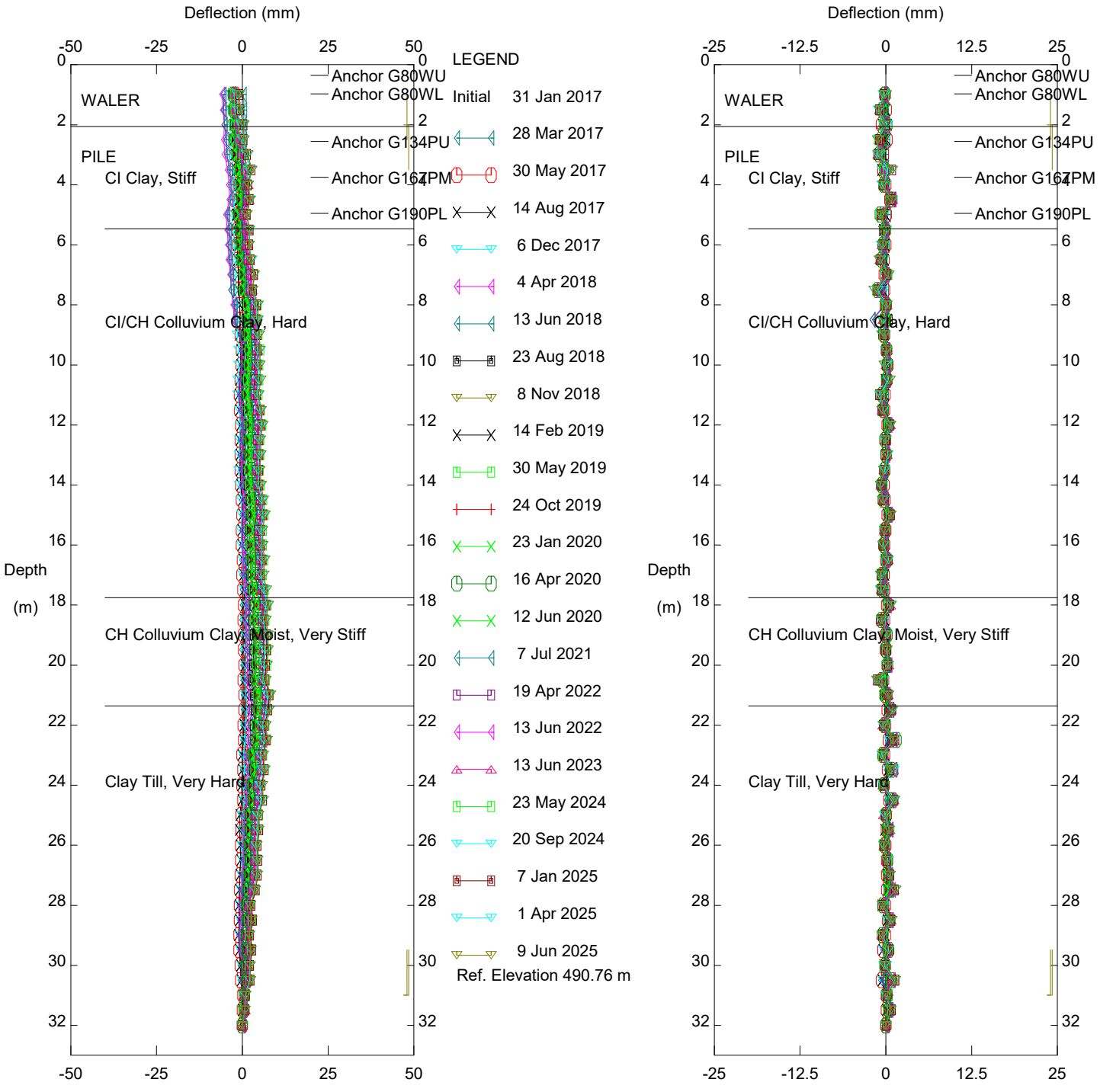

Cumulative Deflection

Direction B

Incremental Deflection

Direction B

PH070 Hwy 2:60 East Hill, Inclinometer SAA-P74

Alberta Transportation

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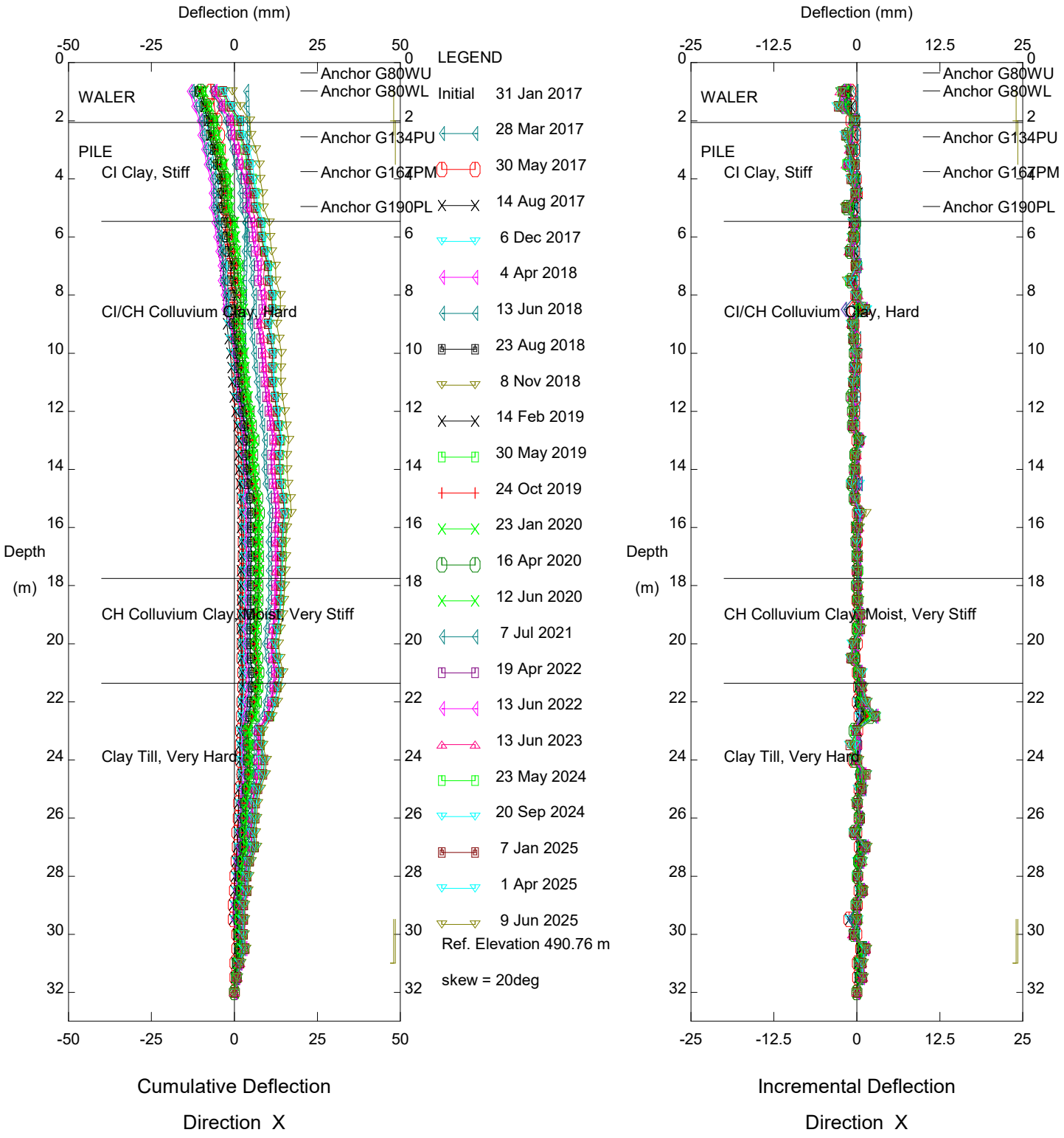

Cumulative Deflection

Direction X

Incremental Deflection

Direction X

PH070 Hwy 2:60 East Hill, Inclinometer SAA-P74

Alberta Transportation

G:\32000\32121 AT GRMP Peace River District 2021-2025\Section C\2025A-Spring\SAA'S\2025 PH070 Spring SAA Readings\SAA-P74.gtl

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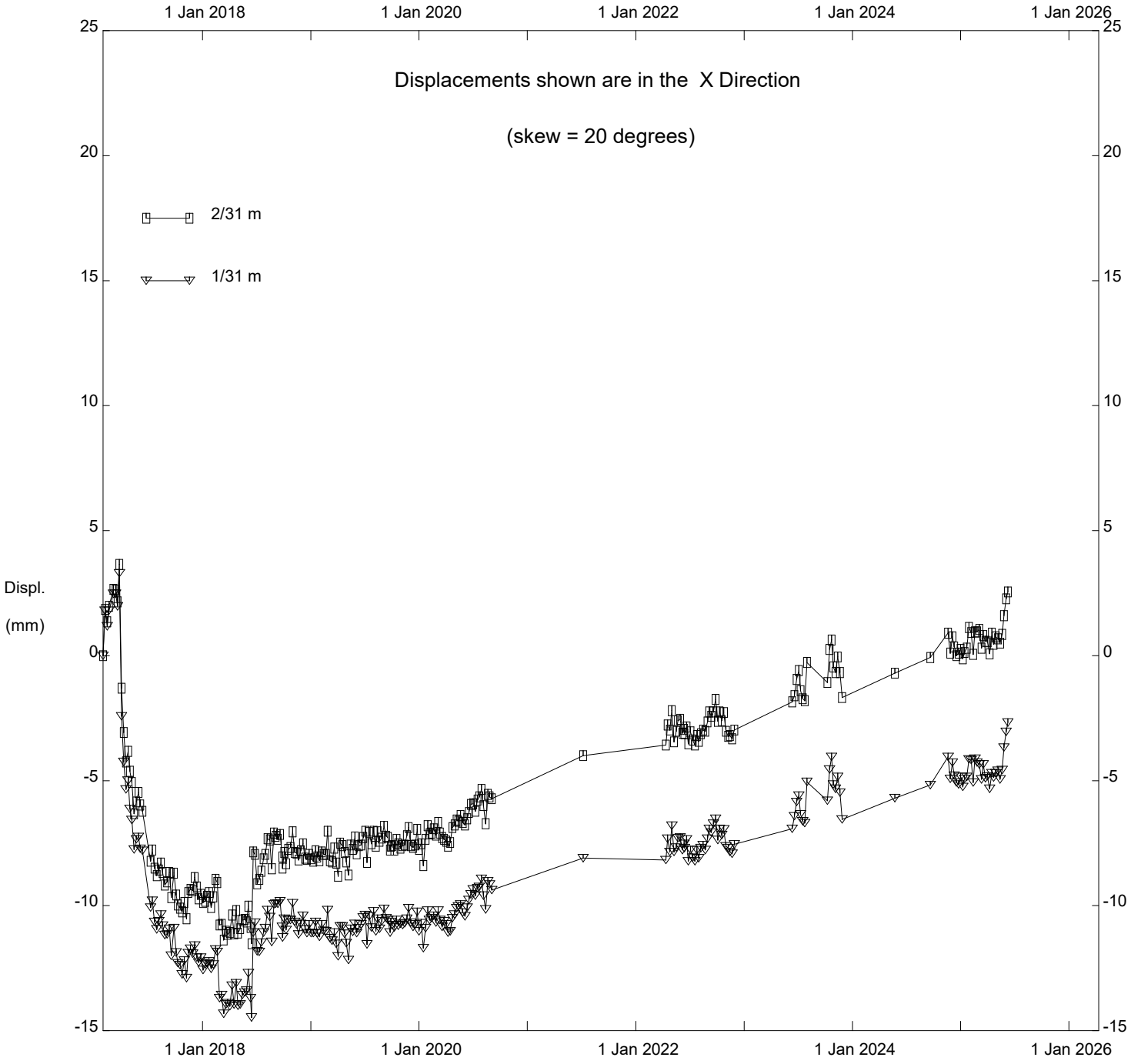

PH070 Hwy 2:60 East Hill, Inclinometer SAA-P74

Alberta Transportation

FIGURE PH070-1
HWY 2:60 PEACE RIVER EAST HILL RETAINING WALL SITE (km 33.84)
PILE P74 DOWNSLOPE SIDE STRAIN GAUGE VALUES VS DEPTH

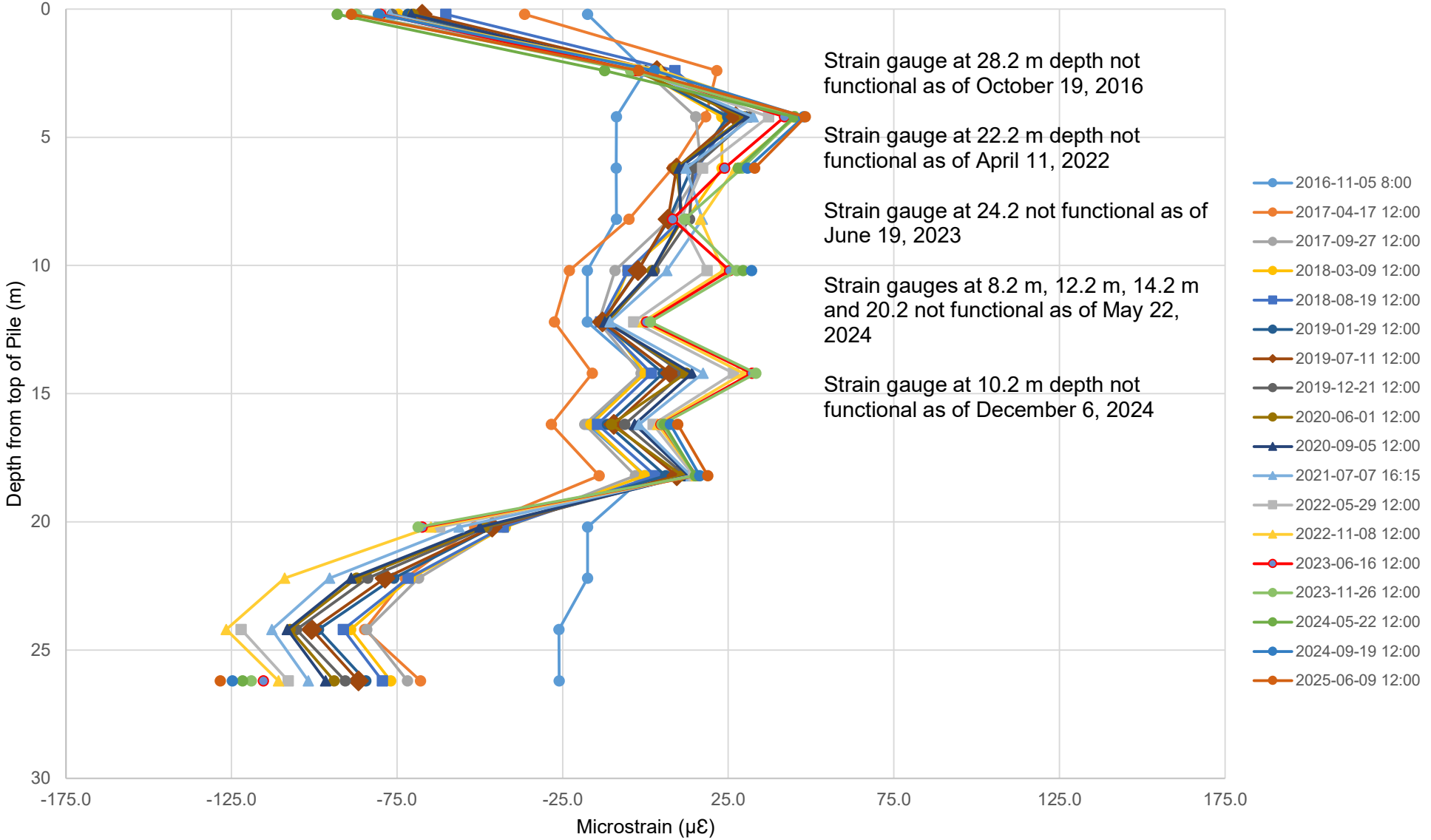

FIGURE PH070-2
HWY 2:60 PEACE RIVER EAST HILL RETAINING WALL SITE (km 33.84)
PILE P74 UPSLOPE SIDE STRAIN GAUGE VALUES VS DEPTH

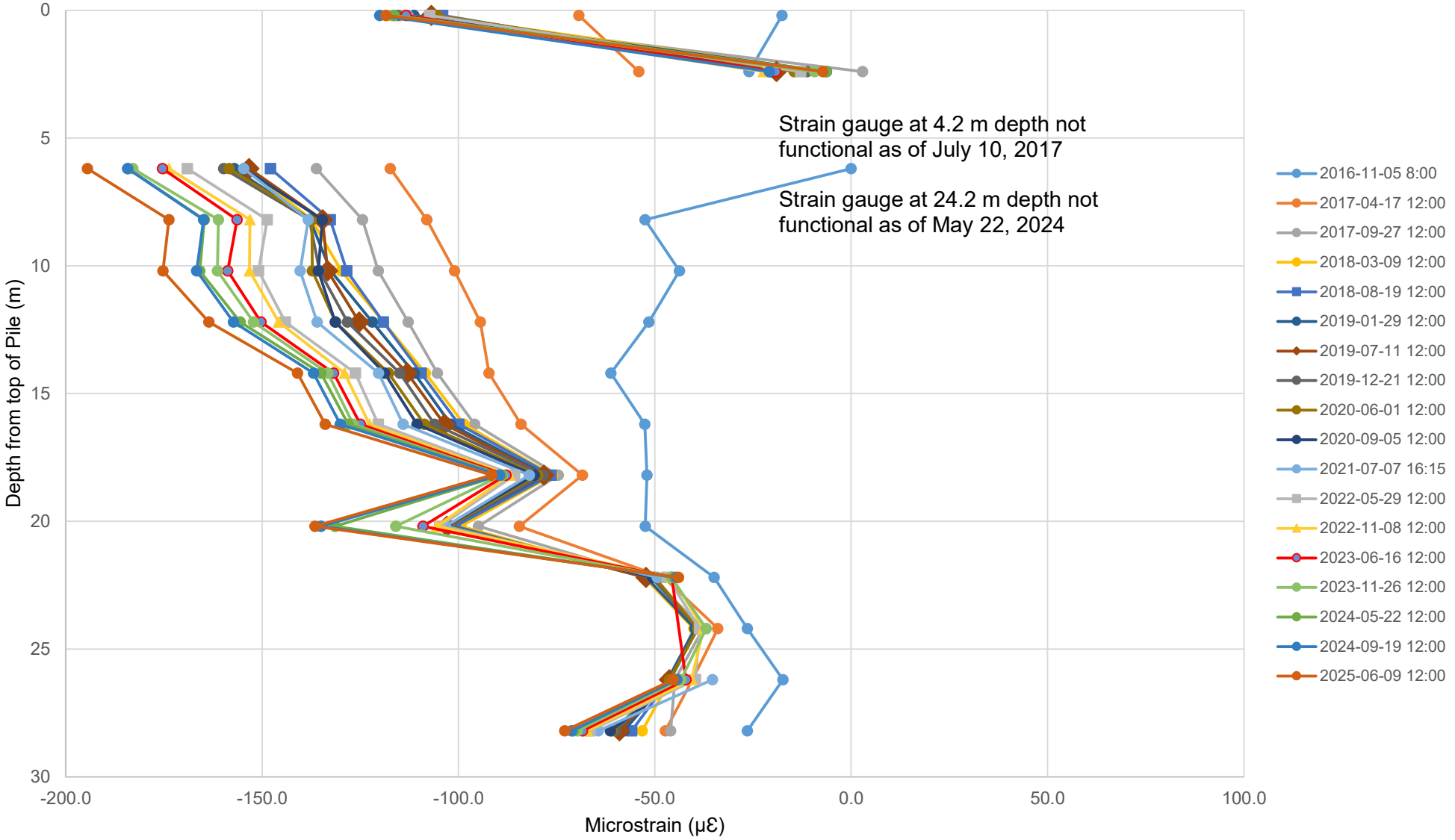

FIGURE PH070-3
HWY 2:60 PEACE RIVER EAST HILL RETAINING WALL SITE (km 33.84)
PIEZOMETRIC ELEVATIONS

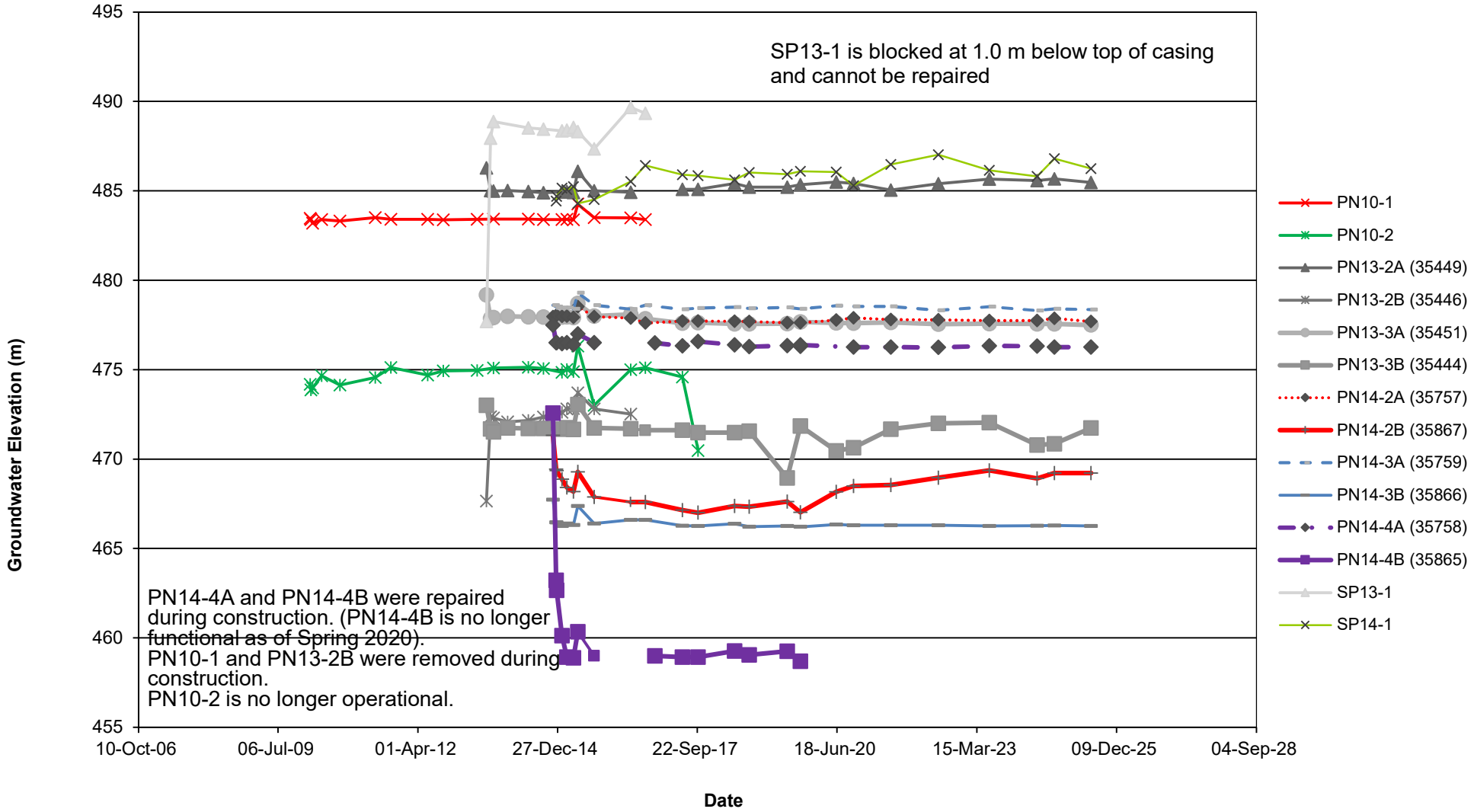

FIGURE PH070-4
HWY 2:60 PEACE RIVER EAST HILL RETAINING WALL SITE (km 33.84)
PIEZOMETRIC DEPTHS

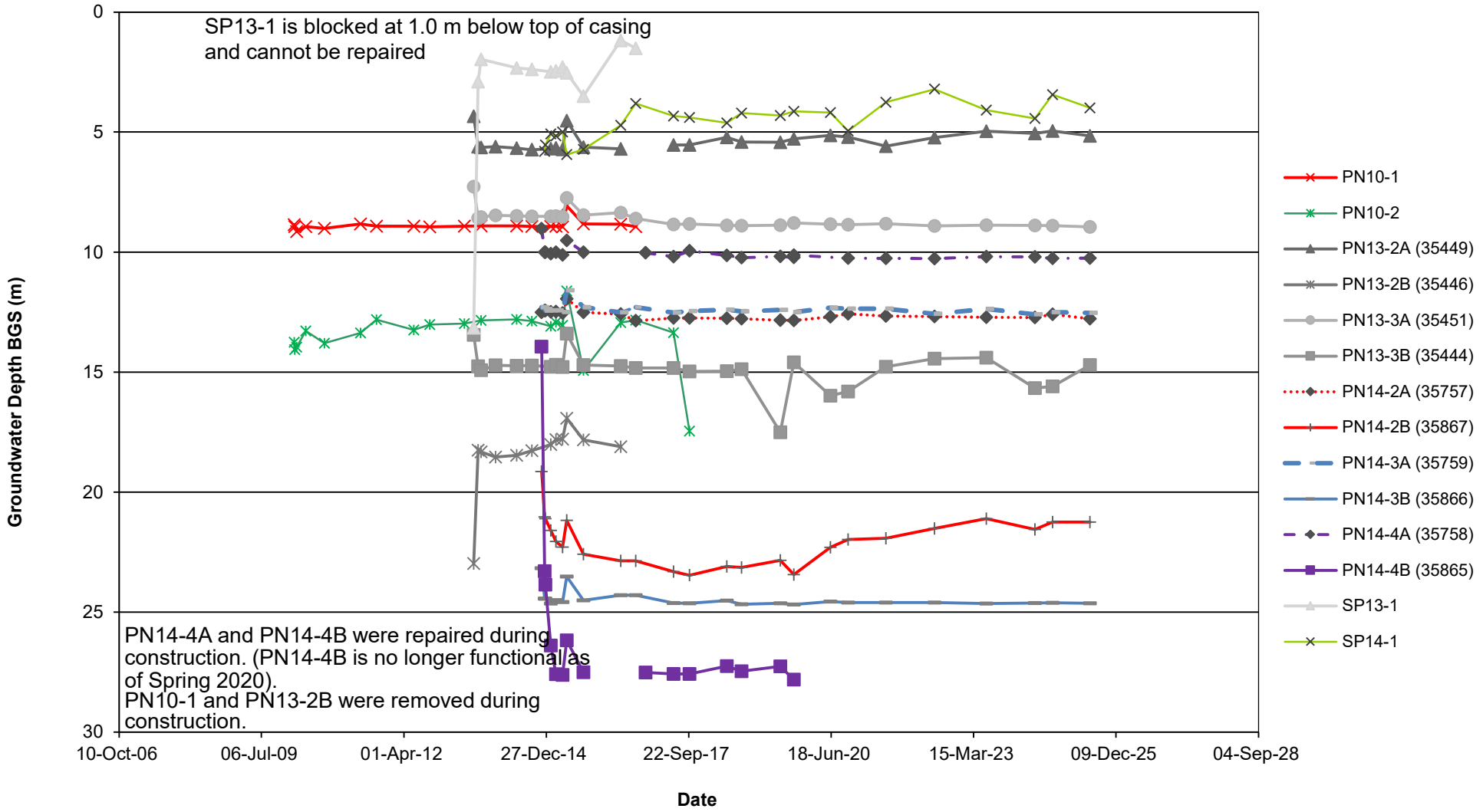

FIGURE PH070-5
HWY 2:60 PEACE RIVER EAST HILL RETAINING WALL SITE (km 33.84)
SECTION 2 LOAD CELLS

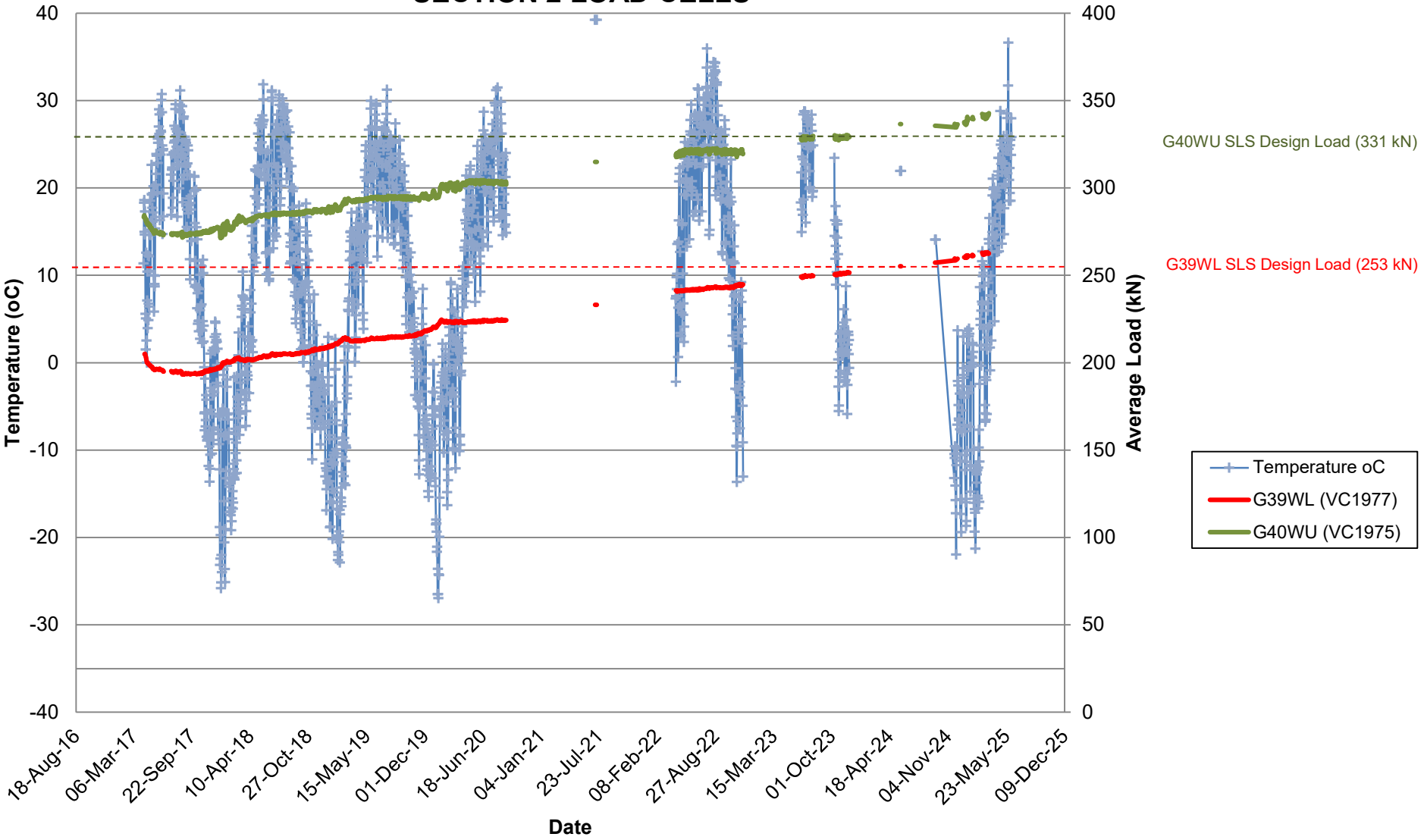

FIGURE PH070-6
HWY 2:60 PEACE RIVER EAST HILL RETAINING WALL SITE (km 33.84)
SECTION 3A LOAD CELLS

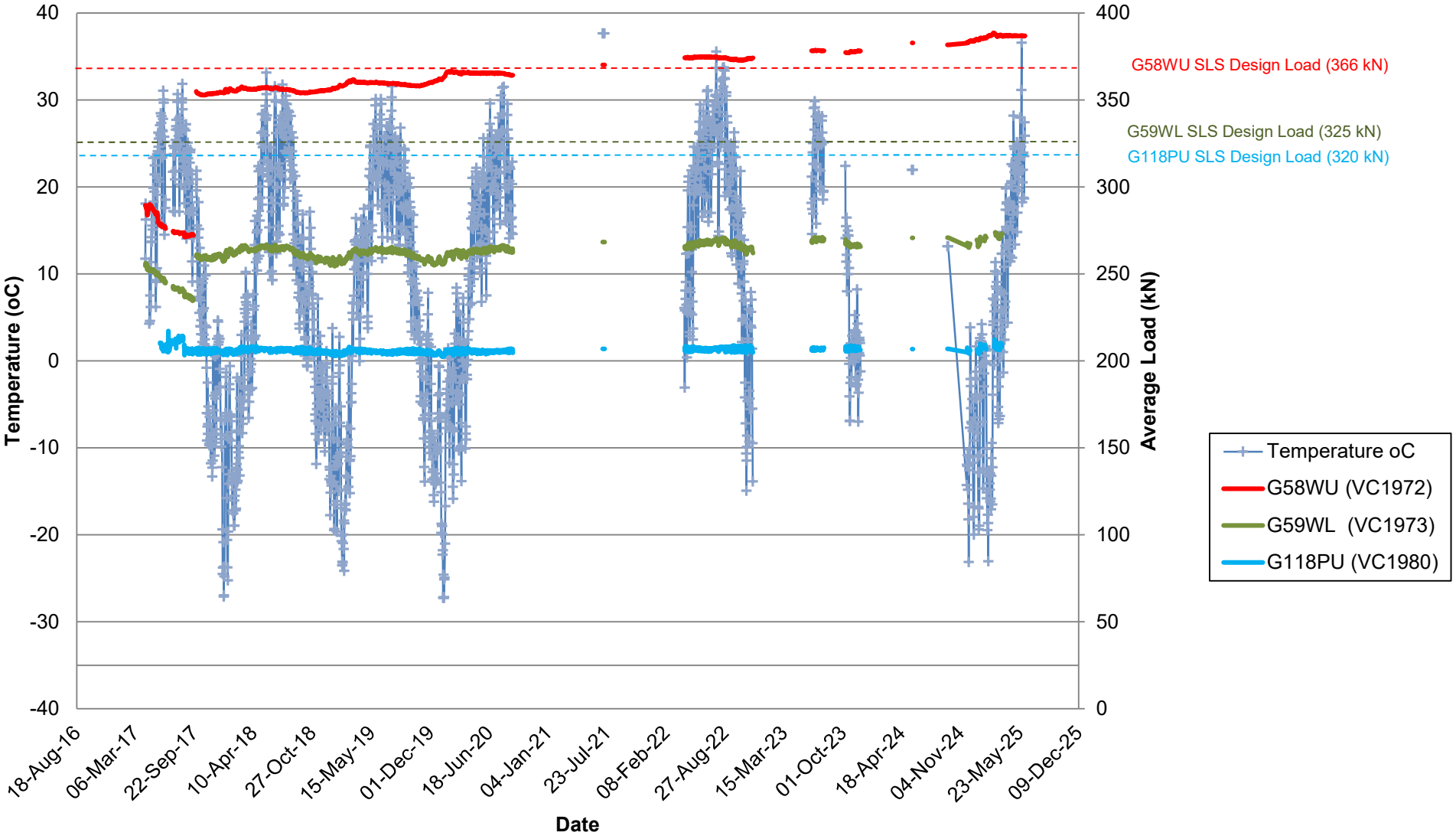

FIGURE PH070-7
HWY 2:60 PEACE RIVER EAST HILL RETAINING WALL SITE (km 33.84)
SECTION 3B LOAD CELLS

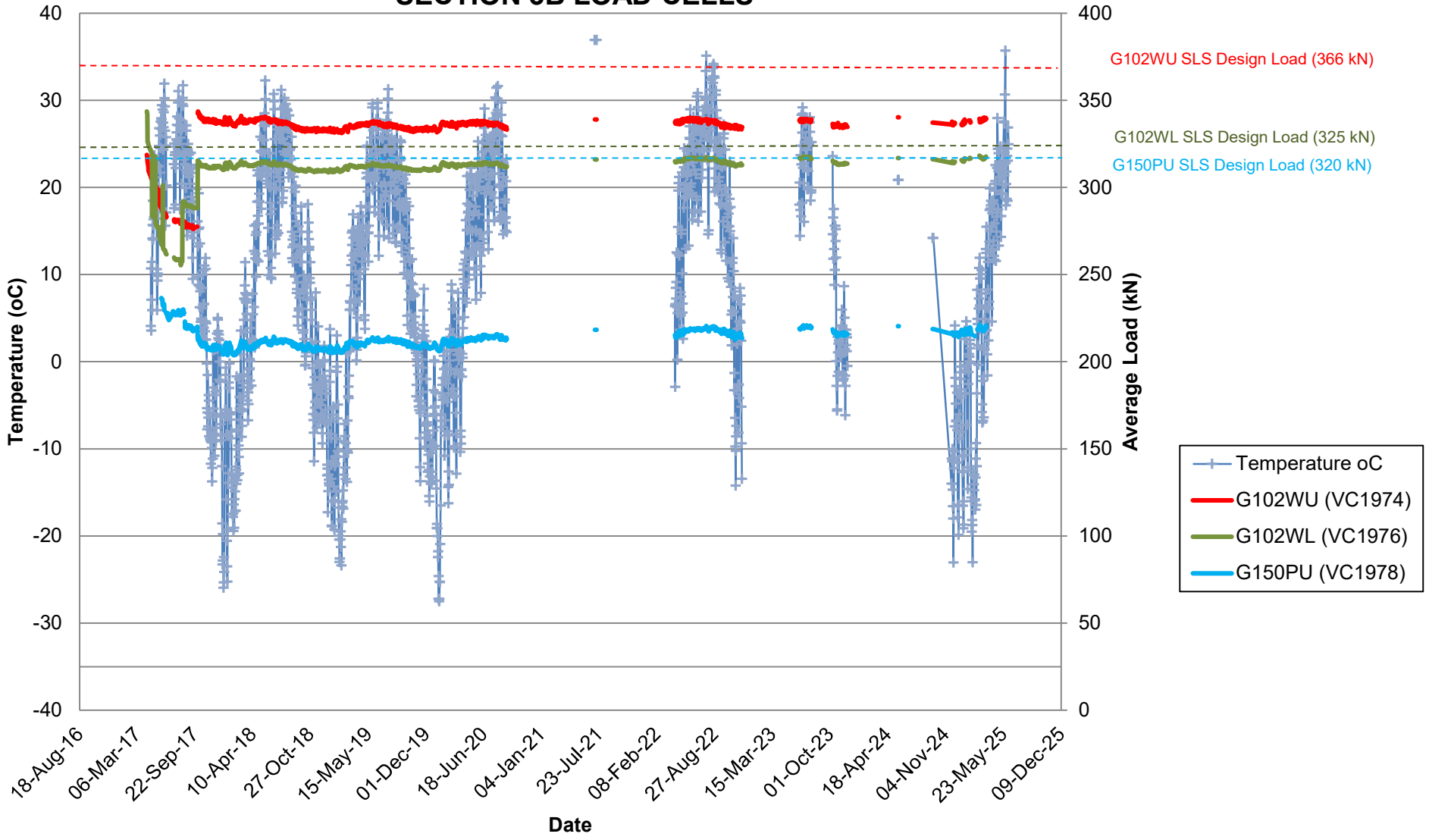

FIGURE PH070-8
HWY 2:60 PEACE RIVER EAST HILL RETAINING WALL SITE (km 33.84)
SECTION 4 LOAD CELLS