



# GEOPHYSICAL EXPLORATION SUNDRY NOTICE - FORM GE 4

INDUSTRIAL COMMISSION OF NORTH DAKOTA  
OIL AND GAS DIVISION  
600 EAST BOULEVARD DEPT 405  
BISMARCK, ND 58505-0840  
SFN 51458 (03-2011)

Received

PERMIT # 970304

FEB 27 2023

Project Name	RTE SASSA Baseline	ND Oil & Gas Division
County	Stark	
Supplemental Information		
<p>Adding Seismic Mechatronics Storm 10 as source for project. There are now 132 arrays and 1 real time sensor. The project will be completed by November 2024 with removal of the arrays. Attached is the updated project map showing the new source location and sensor locations.</p>		

Company	Red Trail Energy	Telephone Number	701-974-3308
Address	3682 Highway 8 South		
City	Richardton	State	ND
		Zip Code	58652
Signature	<i>Dave Burns</i>	Printed Name	Dave Burns
Title	CCS Regulatory	Date	February 23rd, 2023
Email Address	daveb@redtrailenergy.com		

FOR STATE USE ONLY	
<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date	2/28/23
By	<i>[Signature]</i>
Title	Mineral Resources Permit Manager

# STORM 10

- Electric seismic vibrator (Seismic Mechatronics)
- Storm 10 can be mounted on small carriers with a max. width of 1.5 meters (4.9 ft)
- Size: 80x80x40 cm (31.4x31.4x15.7 in)
- Weight: 1000 kg (2204.6 pounds)
- Electric seismic source capable of generating high forces between **1-240Hz**

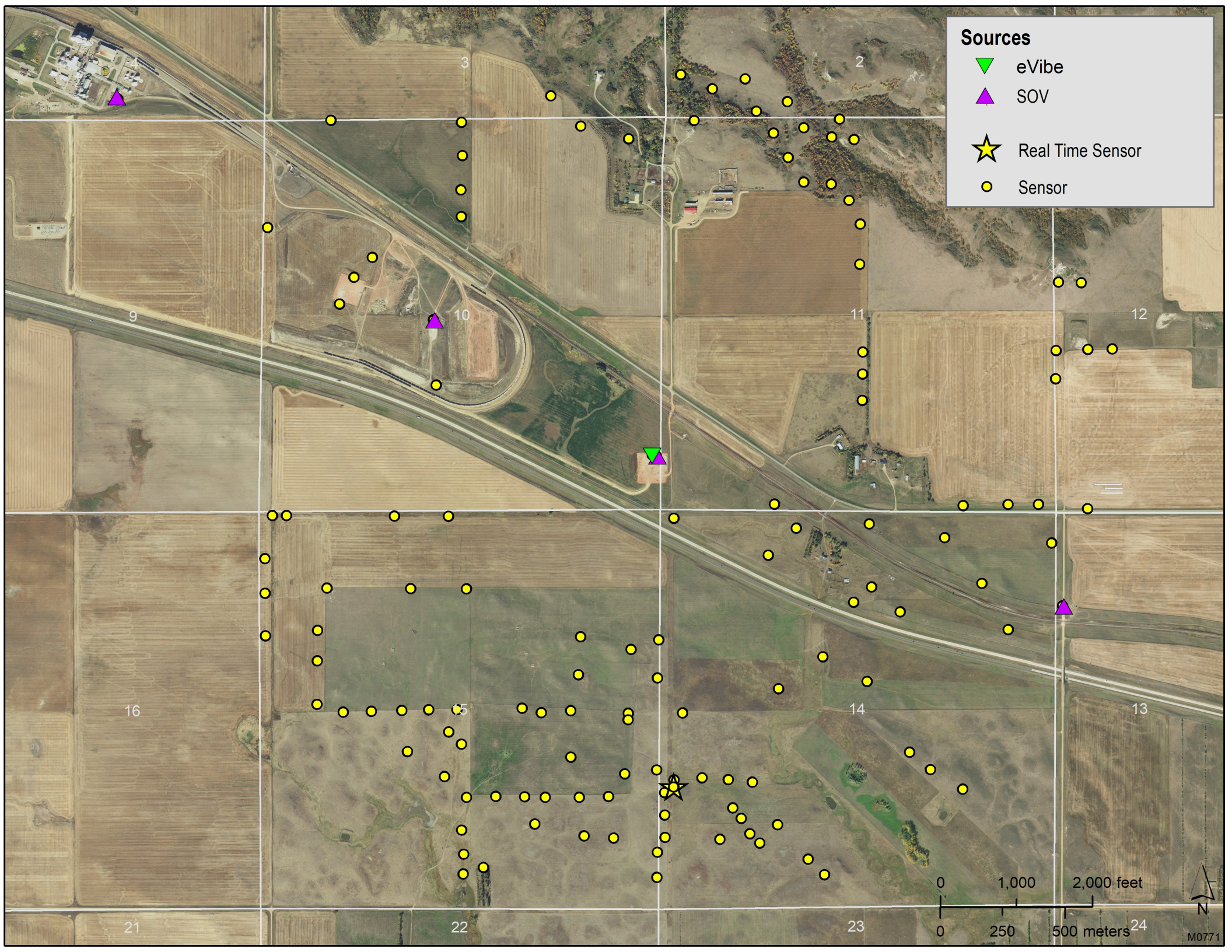


*Storm 10 will be mounted on a similar vehicle for the 2D Line project at Red Trail Energy Site (this picture is not showing the Storm 10 unit but this eVibe unit is similar in size)*



**Sources**

- ▼ eVibe
- ▲ SOV
- ★ Real Time Sensor
- Sensor







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FEB 27 2023

Project Name	<b>RTE SASSA BASELINE</b>
County	<b>Stark</b>
Supplemental Information	<p style="text-align: right;"><i>NDic field inspector</i></p> <p><b>This is the notice that temporary array has been removed. Tom<sup>1</sup> looked at the SOV2 location after the array was removed. Red Trail is the landowner and we are statified the with the reclamation of the holes. Attached are the Highlands survey report and the excel file for the the latitude and longitude of each geophone.</b></p>

Company <b>Red Trail Energy</b>		Telephone Number <b>(701) 974-3308</b>	
Address <b>3682 Highway 8 South</b>			
City <b>Richardton</b>	State <b>ND</b>	Zip Code <b>58652</b>	
Signature <i>Dave Burns</i>	Printed Name <b>Dave Burns</b>		
Title <b>CCS Regulatory</b>	Date <b>February 22, 2023</b>		
Email Address <b>daveb@redtrailenergy.com</b>			

FOR STATE USE ONLY	
<input checked="" type="checkbox"/> Received	<input type="checkbox"/> Approved
Date	<i>2/28/23</i>
By	<i>[Signature]</i>
Title	<b>Mineral Resources Permit Manager</b>









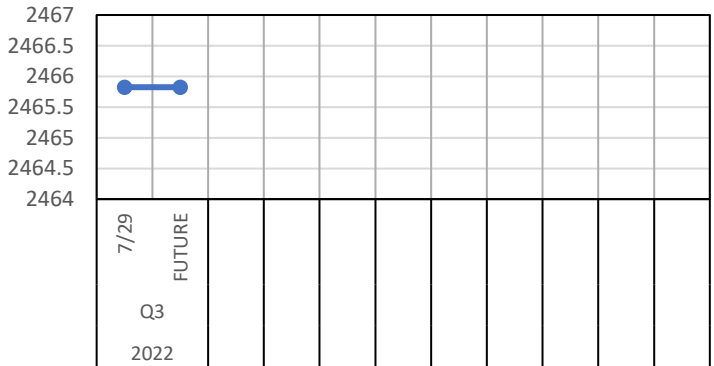




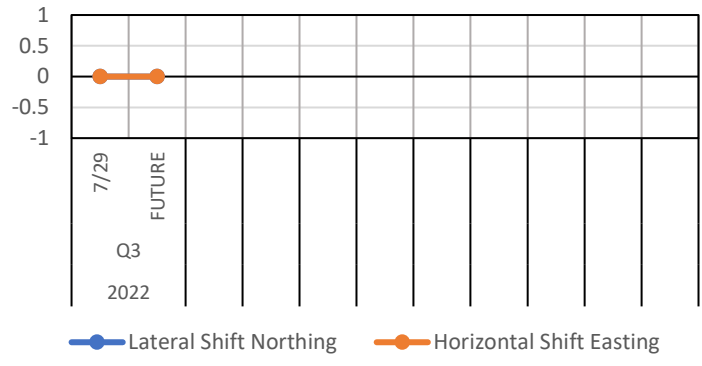
### Site 3 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
40003	2022	Q3	7/29	443648.073	1524042.954	46°52'09.830826"	102°16'37.696468"	2465.824	0	0	0
41003			FUTURE	443648.073	1524042.954			2465.824	0	0	0

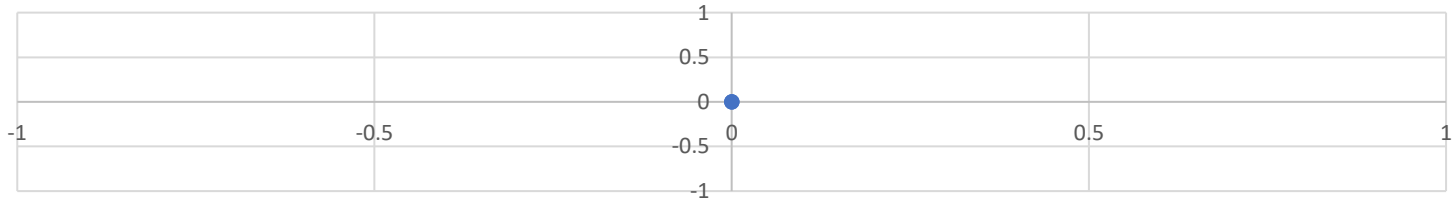
Site 3 Elevation



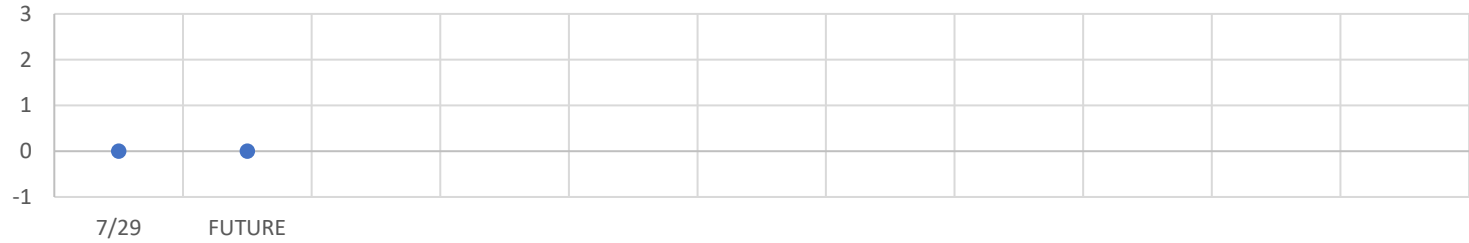
Site 3 Shift



Site 3 Horizontal Movement



Site 3 Vertical Movement



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web www.highlandseng.com

Highlands Engineering & Surveying, PLLC  
319 24th Street East | Dickinson, ND 58601

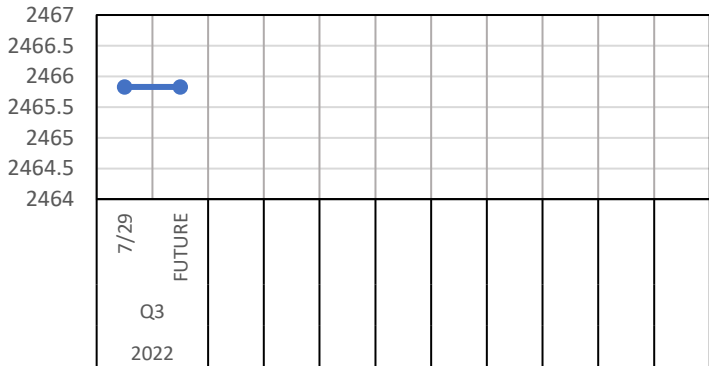




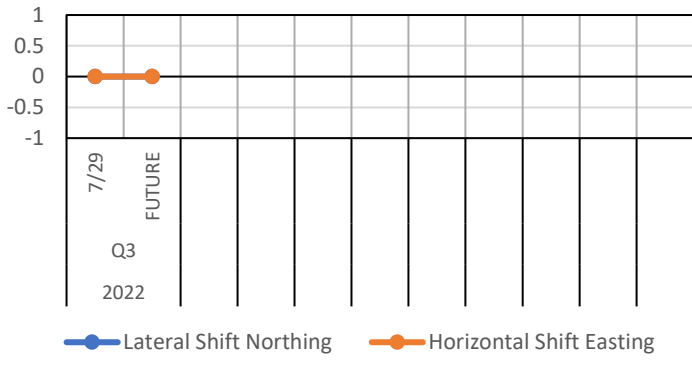
### Site 4 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
40004	2022	Q3	7/29	443651.345	1524047.539	46°52'09.864140"	102°16'37.631558"	2465.828	0	0	0
41004			FUTURE	443651.345	1524047.539			2465.828	0	0	0

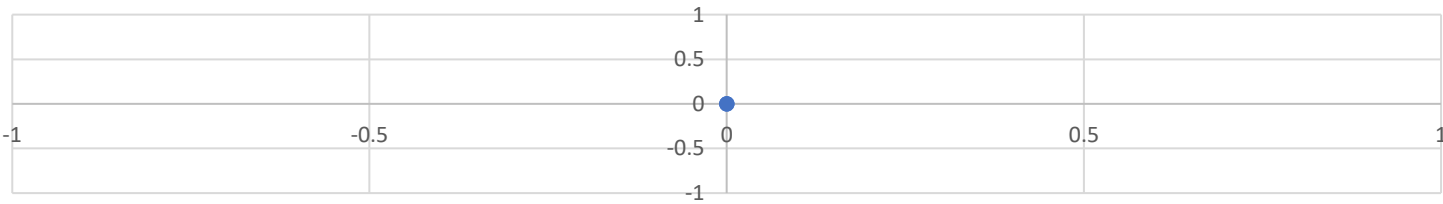
Site 4 Elevation



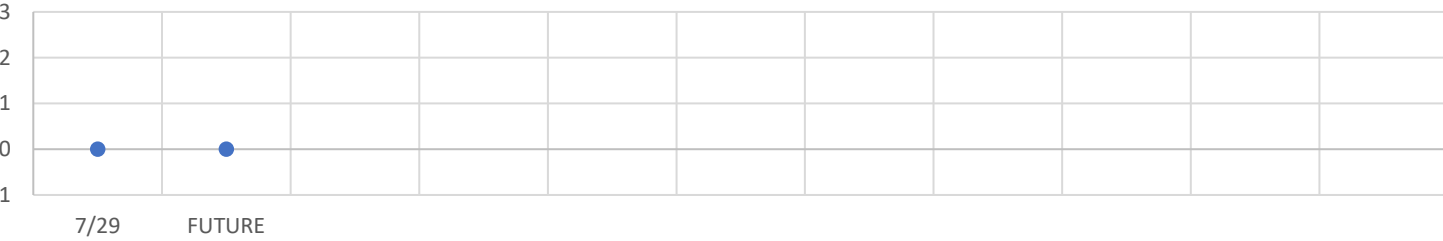
Site 4 Shift



Site 4 Horizontal Movement



Site 4 Vertical Movement



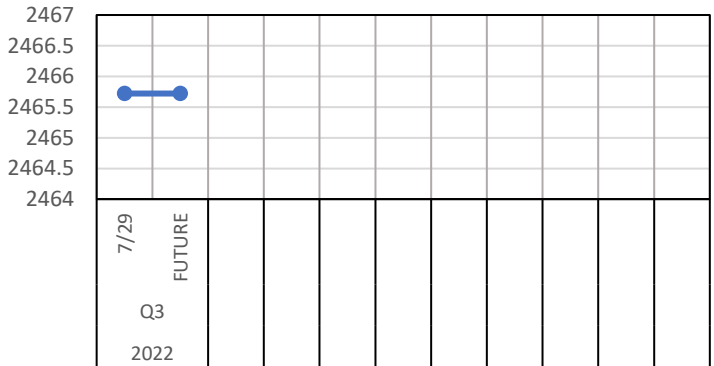




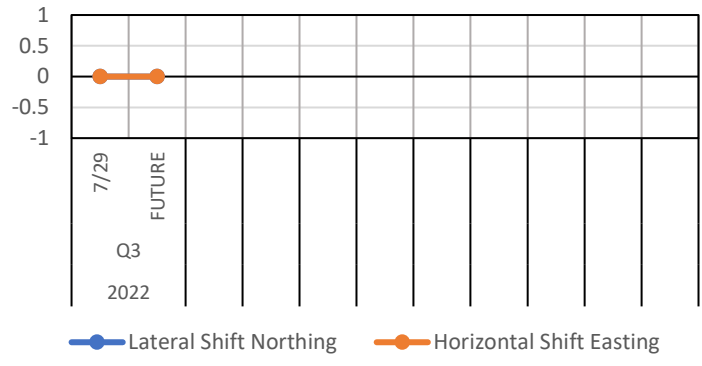
### Site 5 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
40005	2022	Q3	7/29	443655.296	1524051.86	46°52'09.904095"	102°16'37.570667"	2465.721	0	0	0
41005			FUTURE	443655.296	1524051.86			2465.721	0	0	0

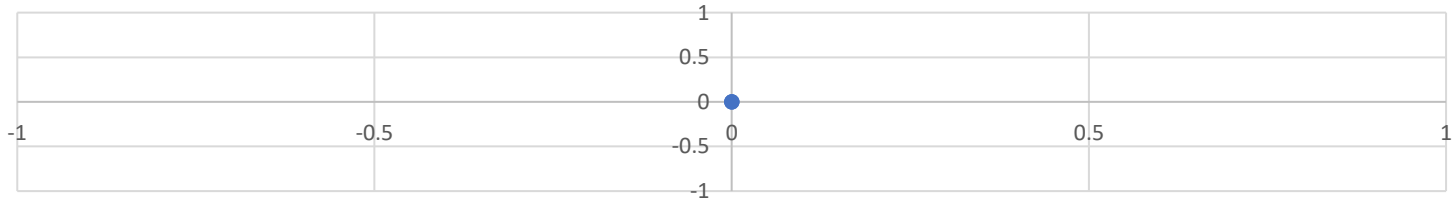
### Site 5 Elevation



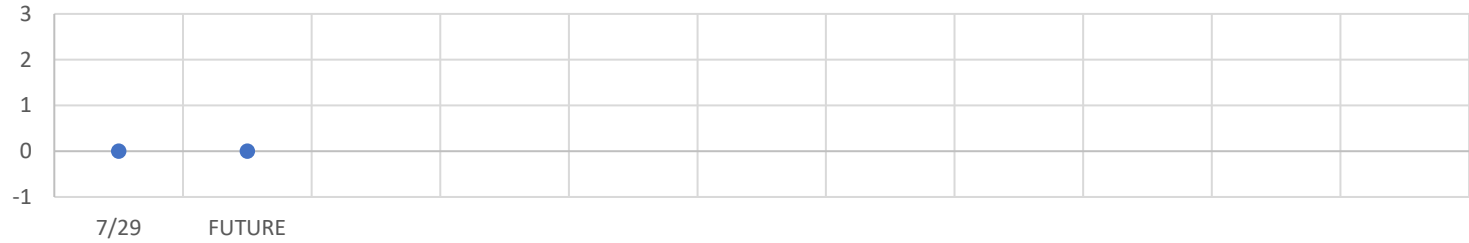
### Site 5 Shift



### Site 5 Horizontal Movement



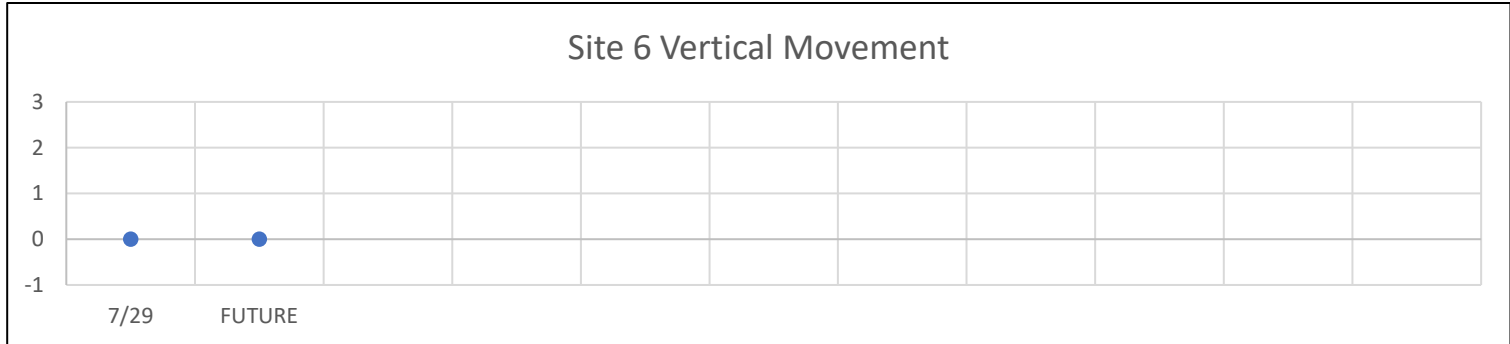
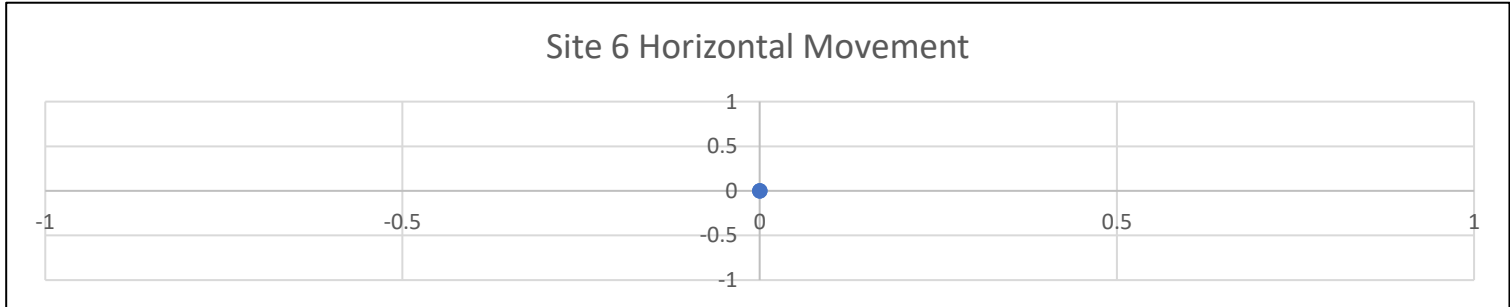
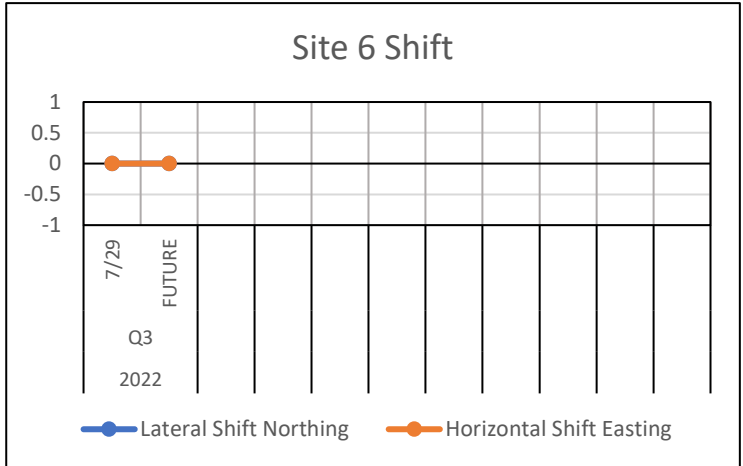
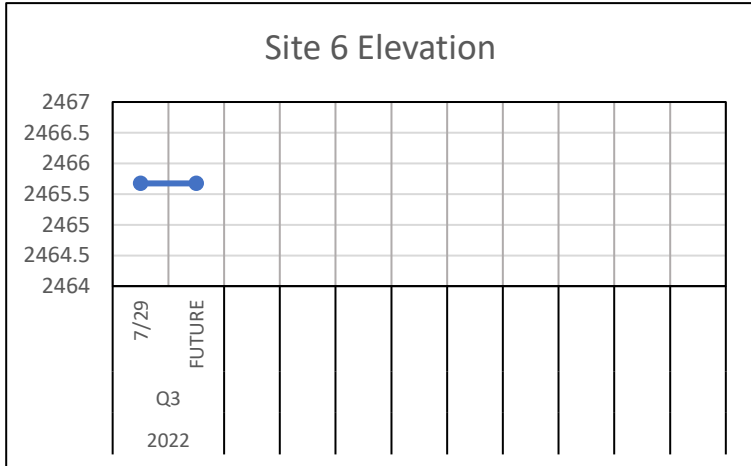
### Site 5 Vertical Movement





### Site 6 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
40006	2022	Q3	7/29	443654.641	1524057.299	46°52'09.898846"	102°16'37.492189"	2465.674	0	0	0
41006			FUTURE	443654.641	1524057.299			2465.674	0	0	0





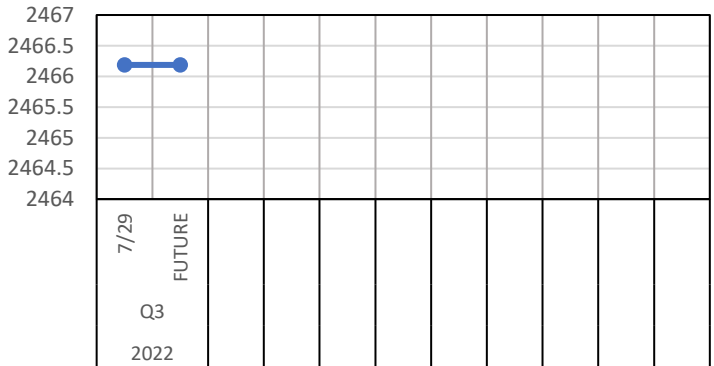




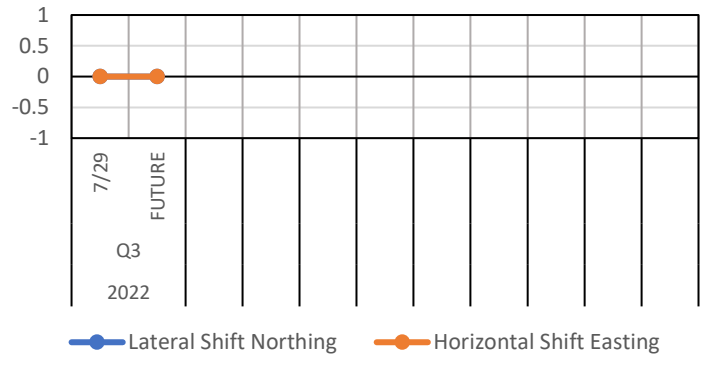
### Site 8 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
40008	2022	Q3	7/29	443649.201	1524066.972	46°52'09.847321"	102°16'37.351229"	2466.187	0	0	0
41008			FUTURE	443649.201	1524066.972			2466.187	0	0	0

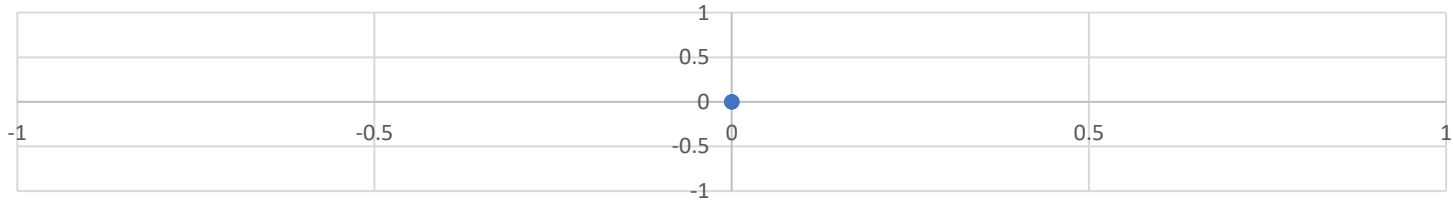
### Site 8 Elevation



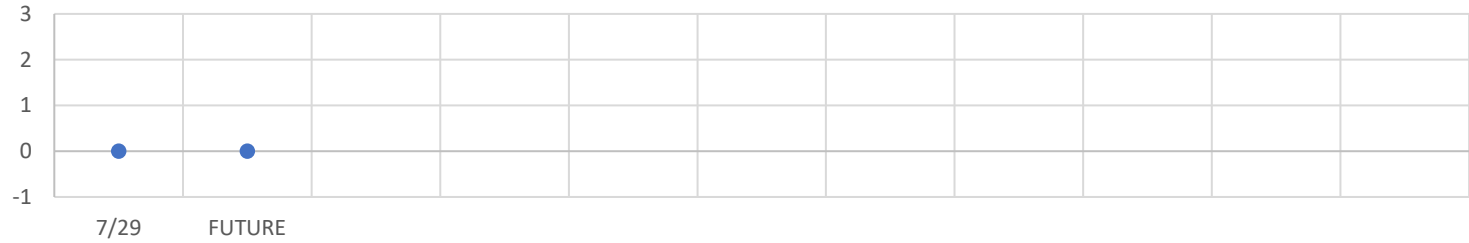
### Site 8 Shift



### Site 8 Horizontal Movement



### Site 8 Vertical Movement

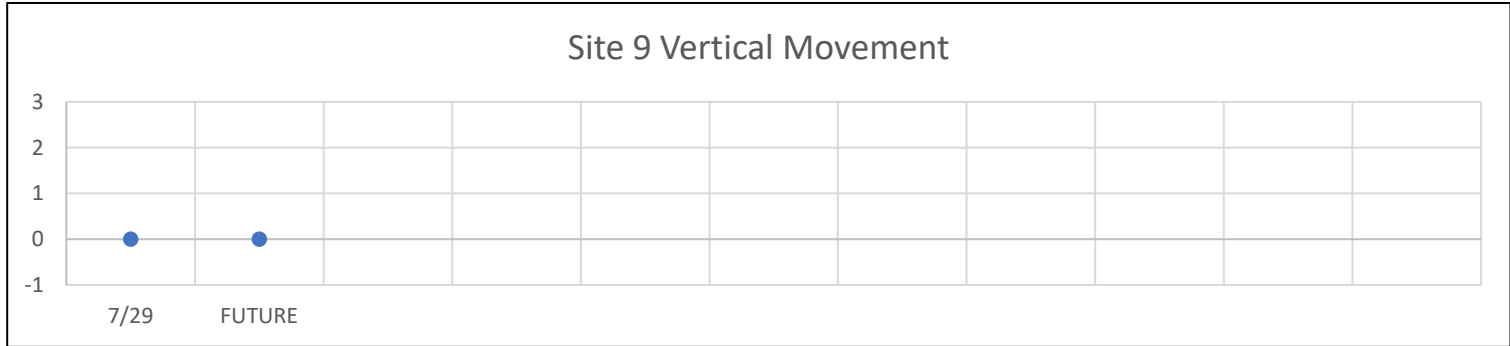
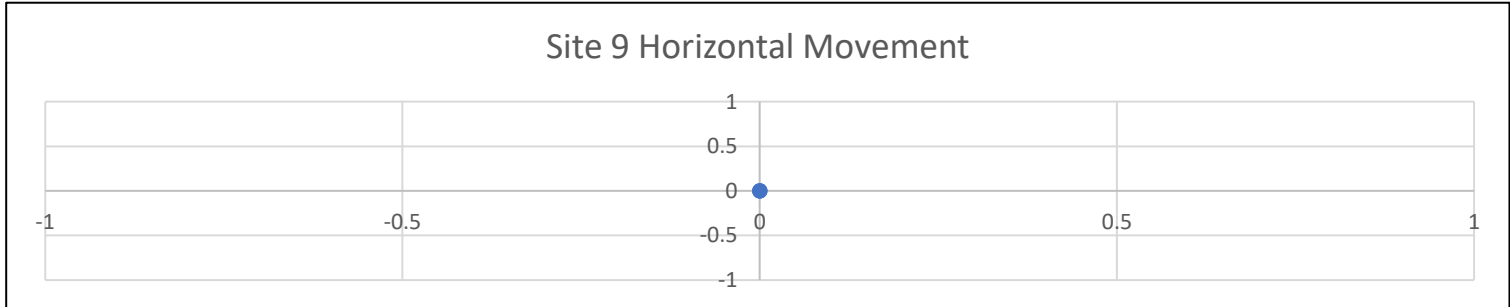
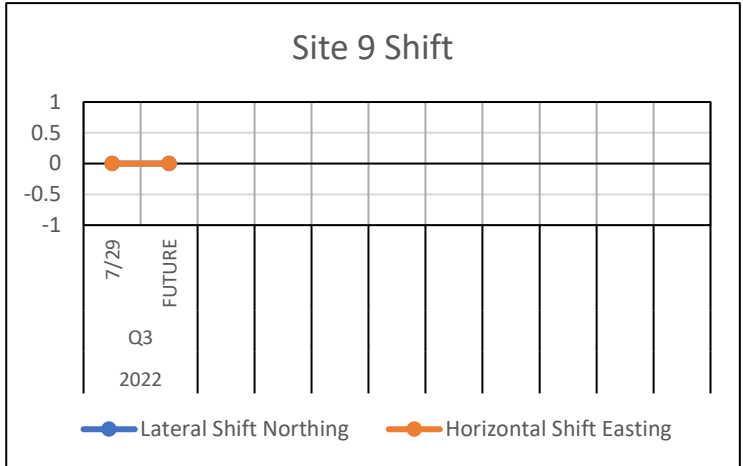
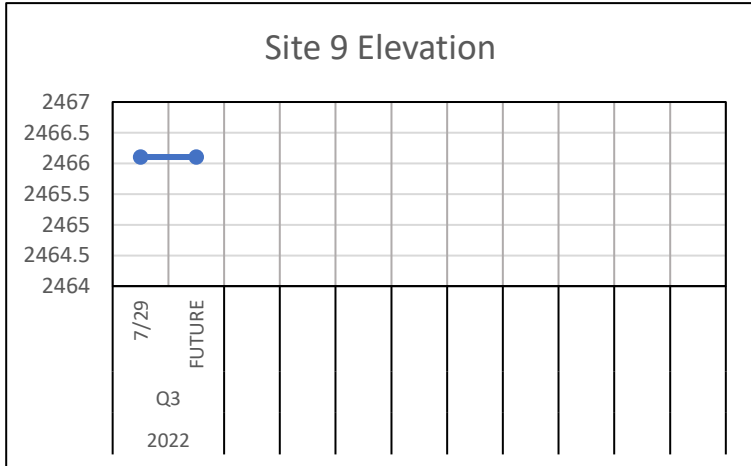






### Site 9 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
40009	2022	Q3	7/29	443644.126	1524071.034	46°52'09.798145"	102°16'37.291126"	2466.104	0	0	0
41009			FUTURE	443644.126	1524071.034			2466.104	0	0	0



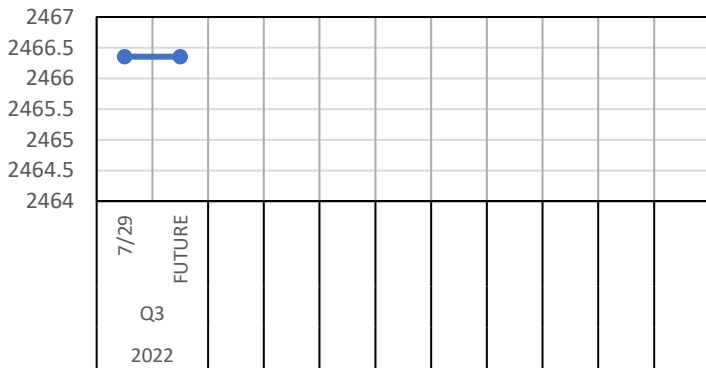




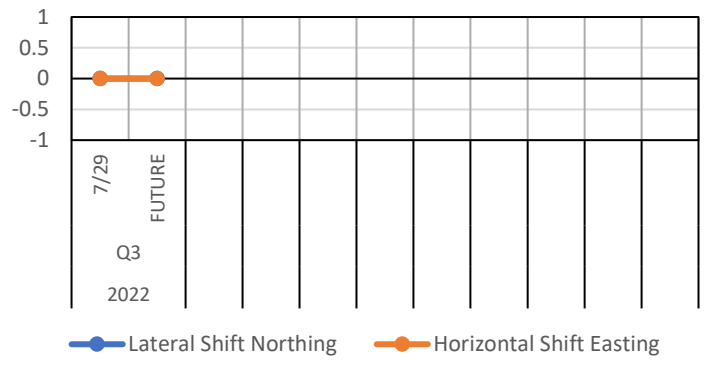
### Site 11 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
40011	2022	Q3	7/29	443633.361	1524069.888	46°52'09.691654"	102°16'37.304112"	2466.354	0	0	0
41011			FUTURE	443633.361	1524069.888			2466.354	0	0	0

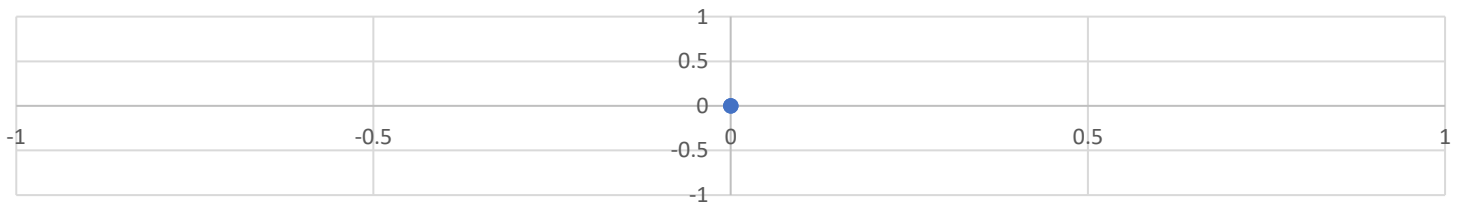
### Site 11 Elevation



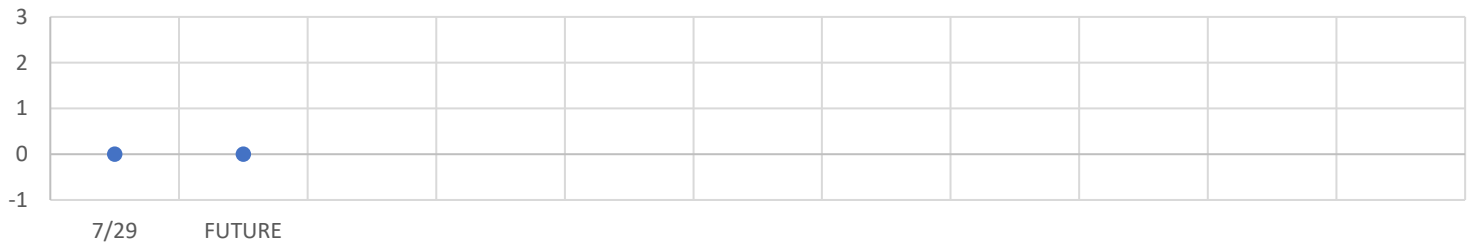
### Site 11 Shift



### Site 11 Horizontal Movement



### Site 11 Vertical Movement











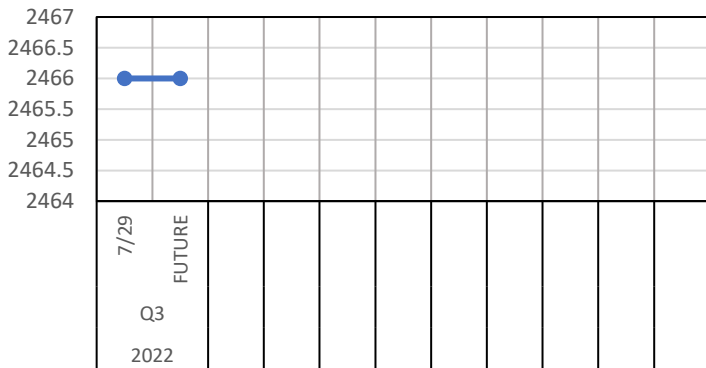




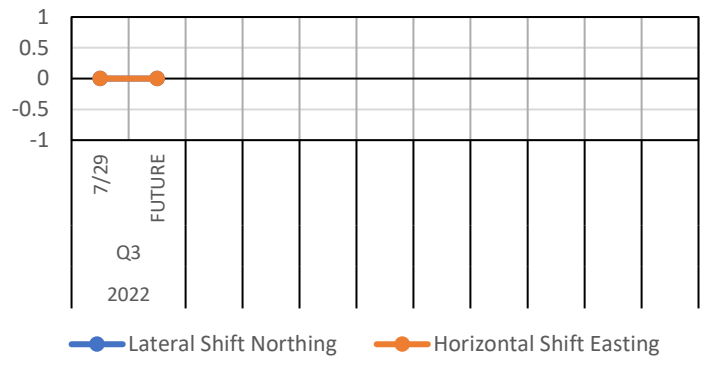
### Site 15 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
40015	2022	Q3	7/29	443627.742	1524048.451	46°52'09.631416"	102°16'37.610750"	2465.999	0	0	0
41015			FUTURE	443627.742	1524048.451			2465.999	0	0	0

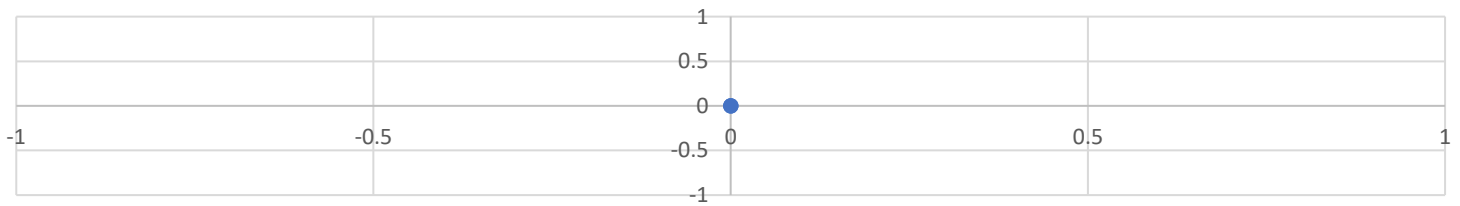
### Site 15 Elevation



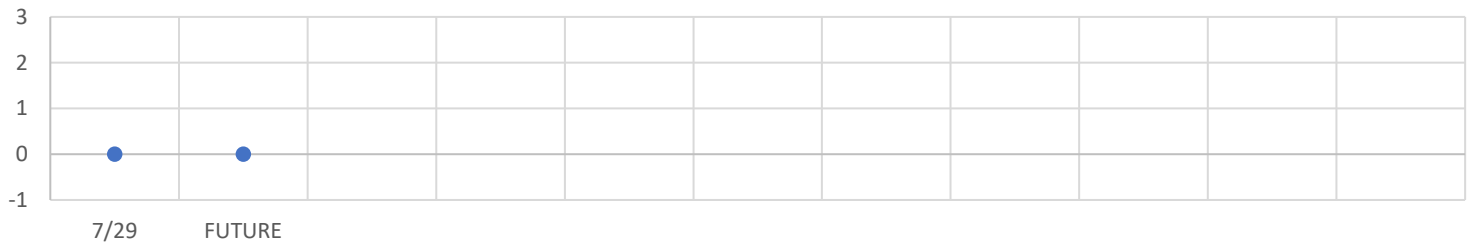
### Site 15 Shift



### Site 15 Horizontal Movement



### Site 15 Vertical Movement

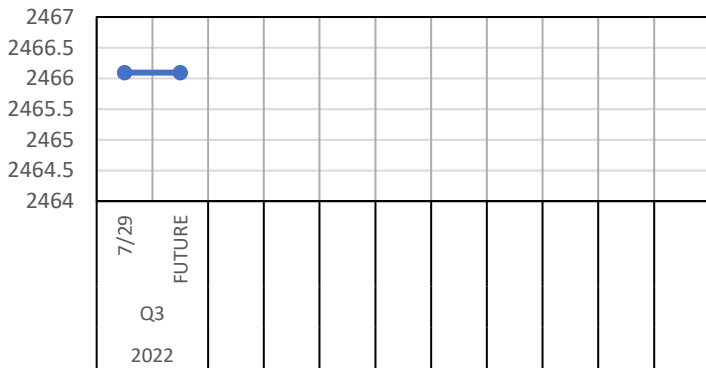




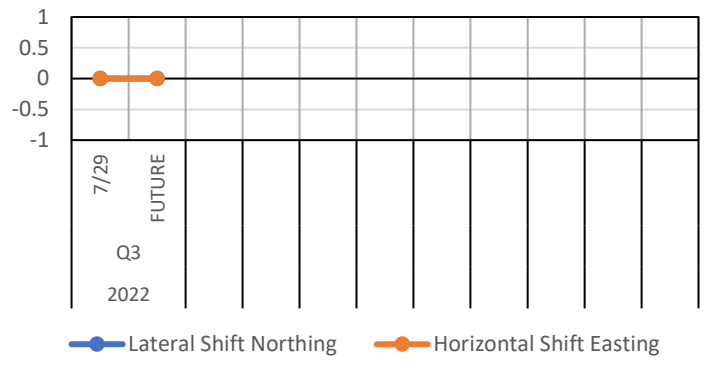
### Site 16 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
40016	2022	Q3	7/29	443631.88	1524050.965	46°52'09.672813"	102°16'37.575922"	2466.094	0	0	0
41016			FUTURE	443631.88	1524050.965			2466.094	0	0	0

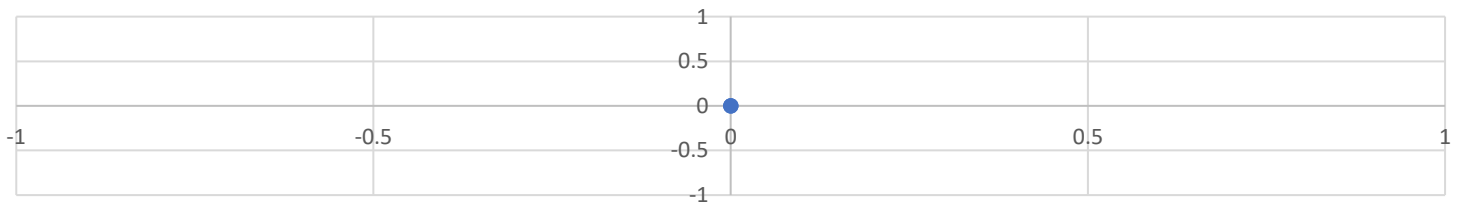
### Site 16 Elevation



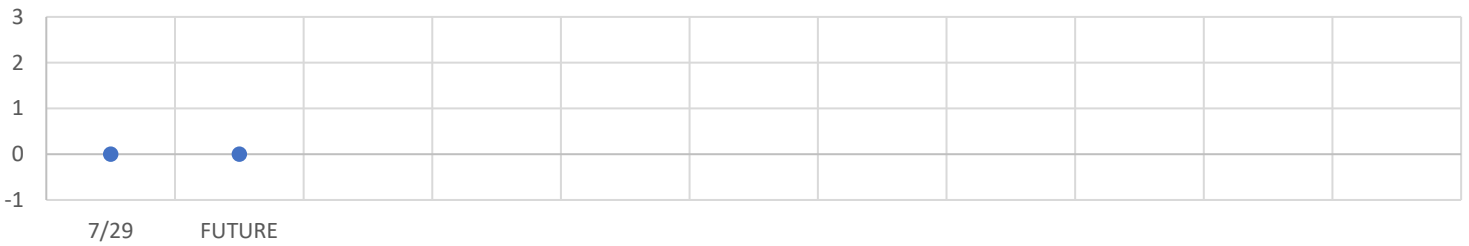
### Site 16 Shift



### Site 16 Horizontal Movement



### Site 16 Vertical Movement

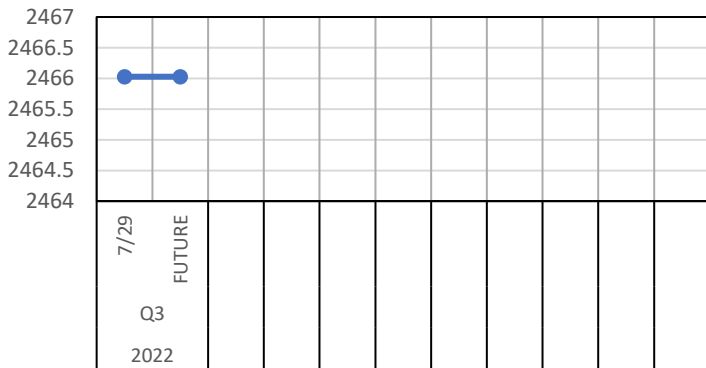




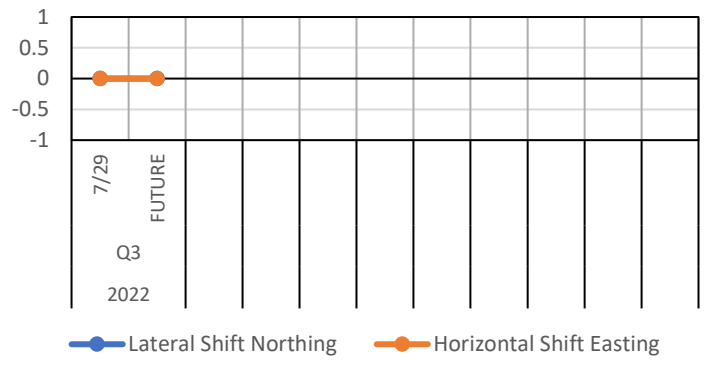
### Site 17 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
40017	2022	Q3	7/29	443631.178	1524055.091	46°52'09.666807"	102°16'37.516322"	2466.027	0	0	0
41017			FUTURE	443631.178	1524055.091			2466.027	0	0	0

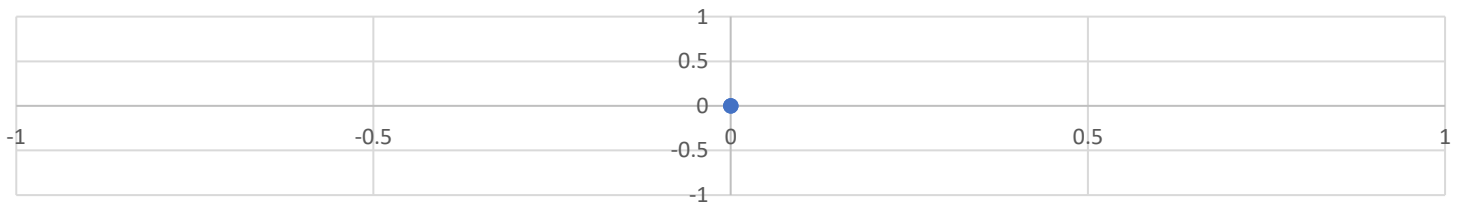
### Site 17 Elevation



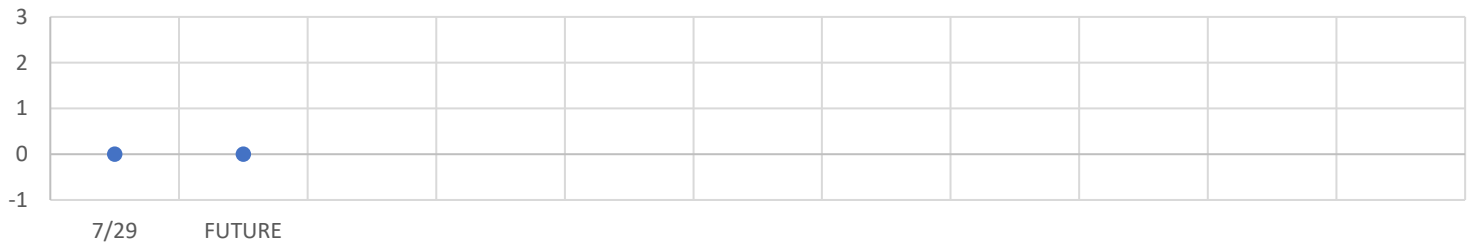
### Site 17 Shift



### Site 17 Horizontal Movement



### Site 17 Vertical Movement

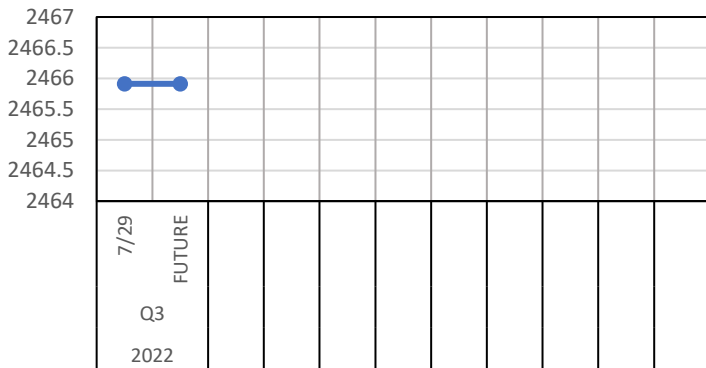




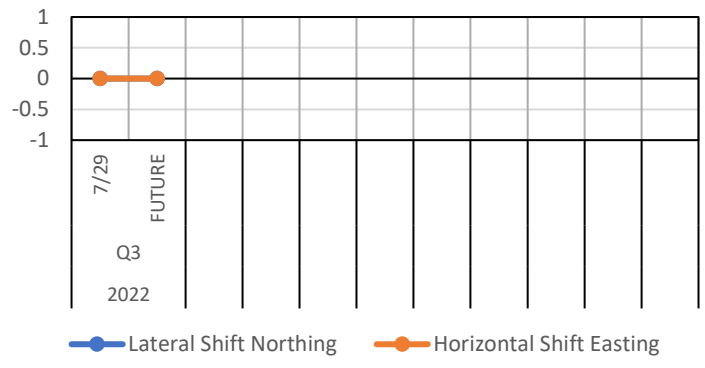
### Site 18 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
90001	2022	Q3	7/29	443632.45	1524044.812	46°52'09.677064"	102°16'37.664646"	2465.912	0	0	0
91001			FUTURE	443632.45	1524044.812			2465.912	0	0	0

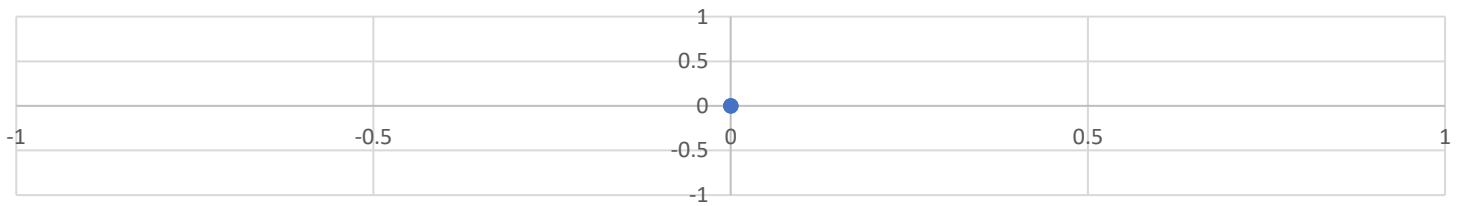
### Site 18 Elevation



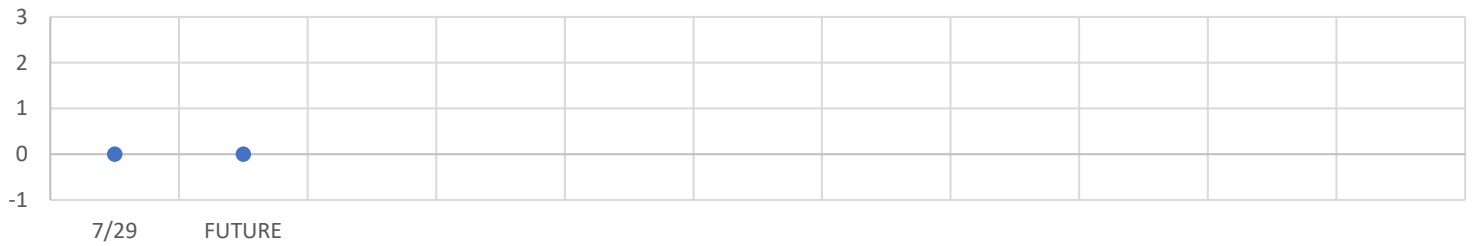
### Site 18 Shift



### Site 18 Horizontal Movement



### Site 18 Vertical Movement



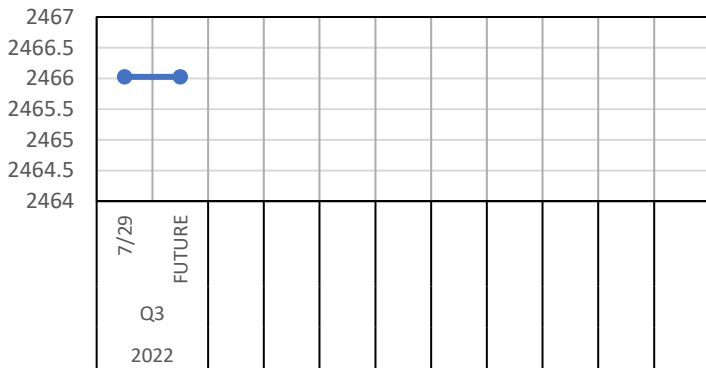




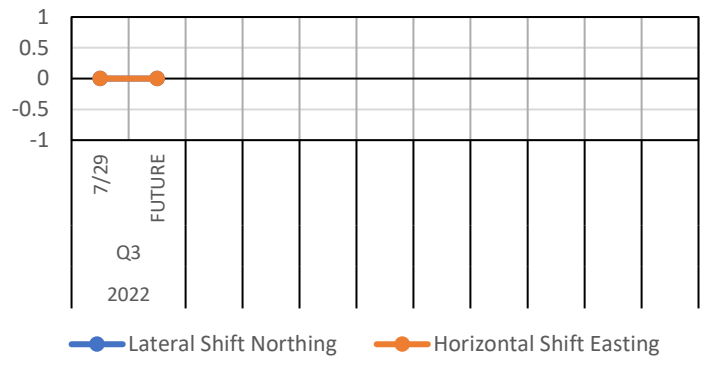
### Site 19 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
90002	2022	Q3	7/29	443634.768	1524048.966	46°52'09.700867"	102°16'37.605627"	2466.025	0	0	0
91002			FUTURE	443634.768	1524048.966			2466.025	0	0	0

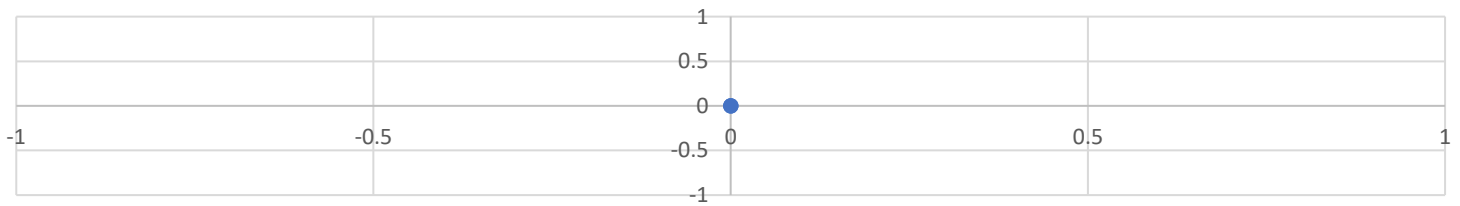
### Site 19 Elevation



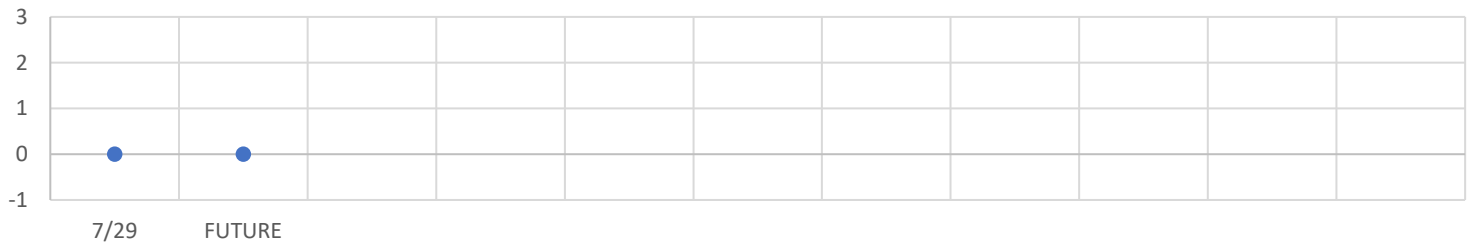
### Site 19 Shift



### Site 19 Horizontal Movement



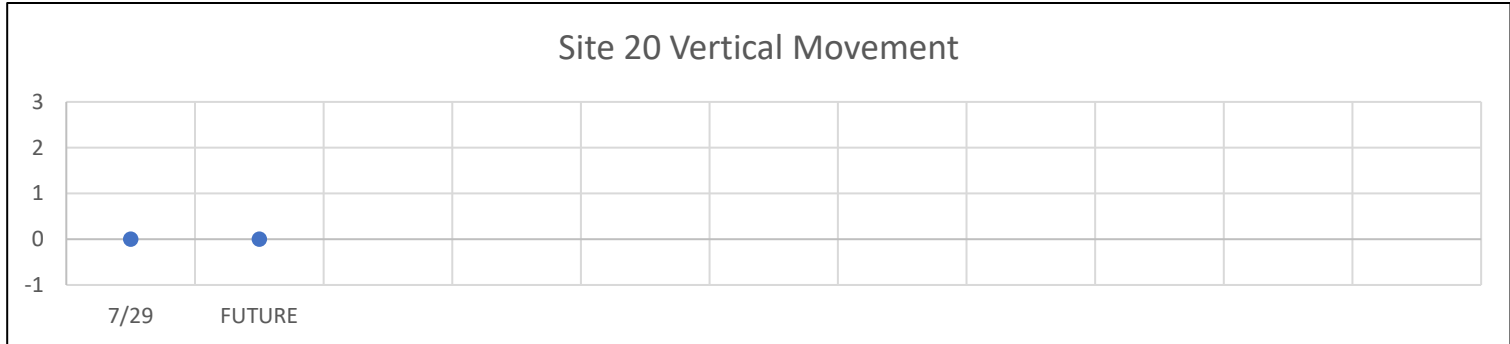
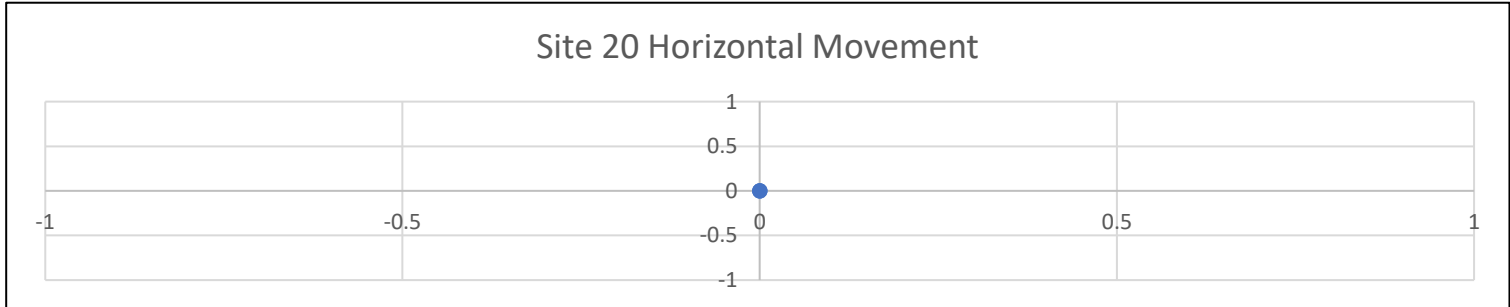
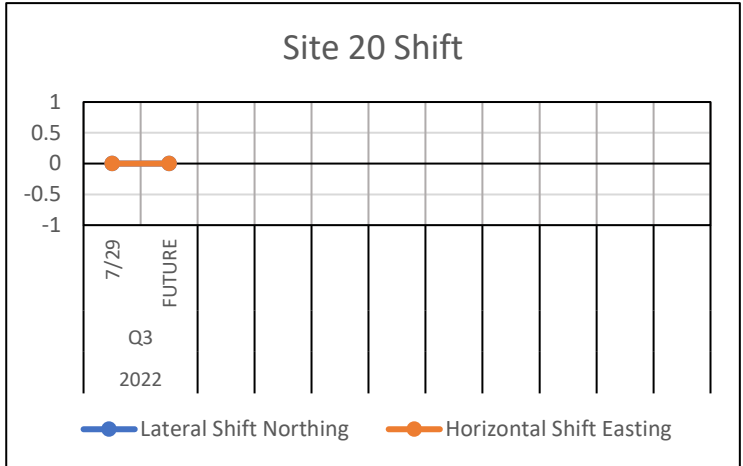
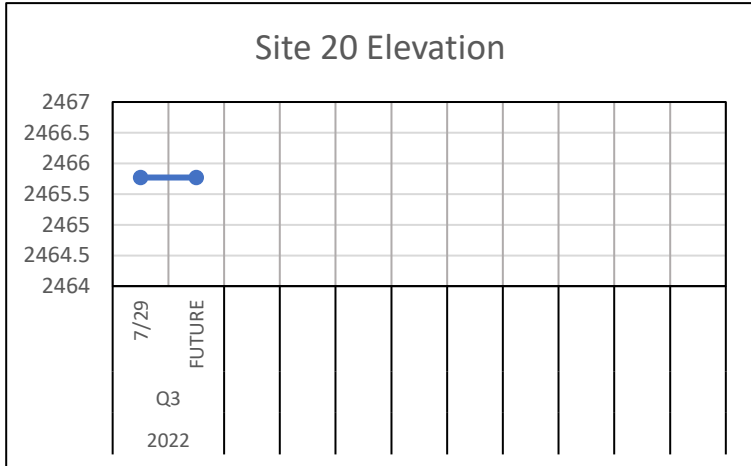
### Site 19 Vertical Movement





### Site 20 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
90003	2022	Q3	7/29	443637.891	1524046.465	46°52'09.731128"	102°16'37.642632"	2465.77	0	0	0
91003			FUTURE	443637.891	1524046.465			2465.77	0	0	0

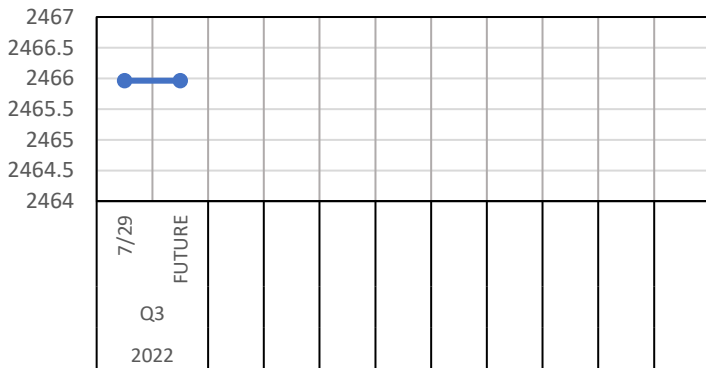




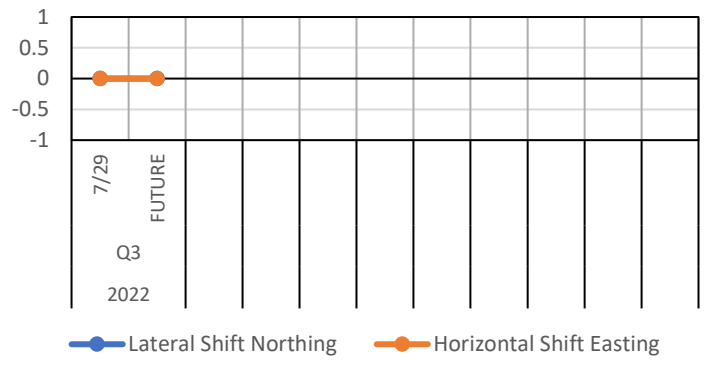
### Site 21 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
90004	2022	Q3	7/29	443641.357	1524046.616	46°52'09.765367"	102°16'37.641587"	2465.963	0	0	0
91004			FUTURE	443641.357	1524046.616			2465.963	0	0	0

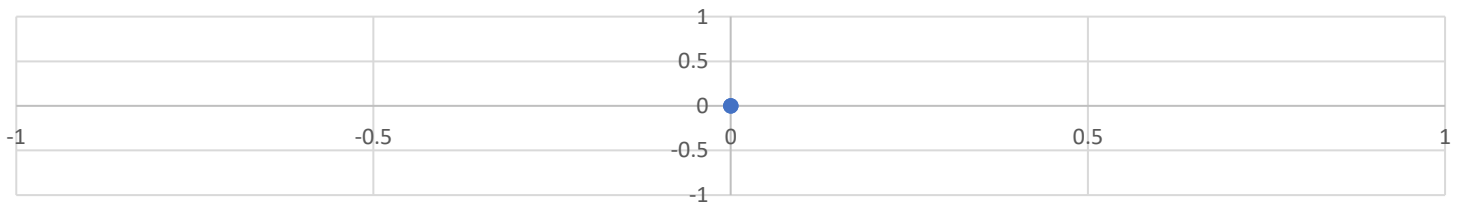
### Site 21 Elevation



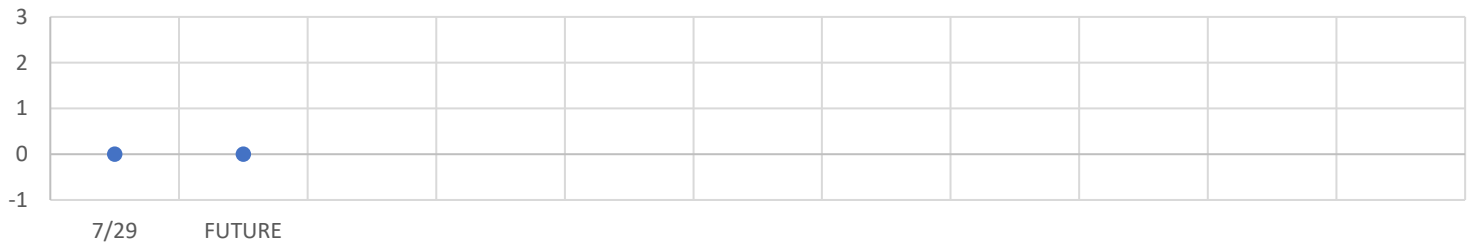
### Site 21 Shift



### Site 21 Horizontal Movement



### Site 21 Vertical Movement

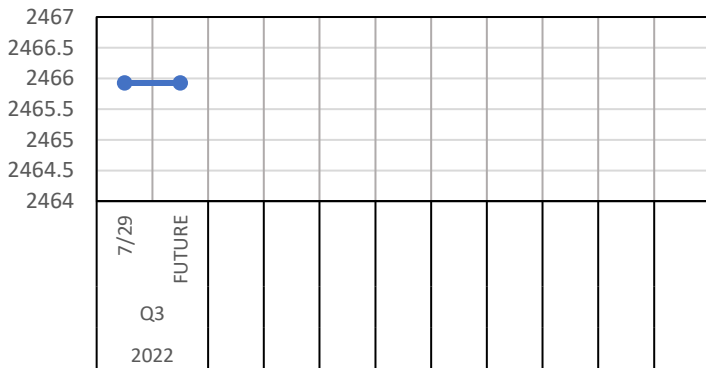




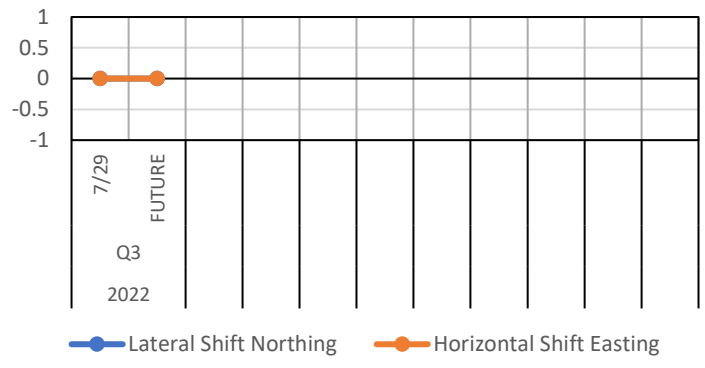
### Site 22 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
90005	2022	Q3	7/29	443645.256	1524047.25	46°52'09.803986"	102°16'37.633734"	2465.925	0	0	0
91005			FUTURE	443645.256	1524047.25			2465.925	0	0	0

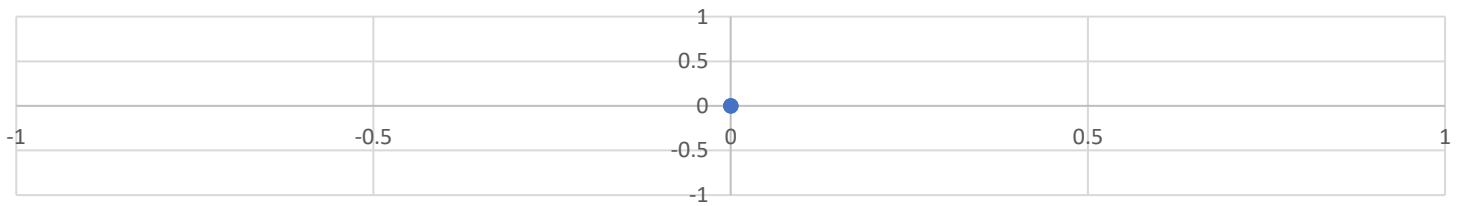
### Site 22 Elevation



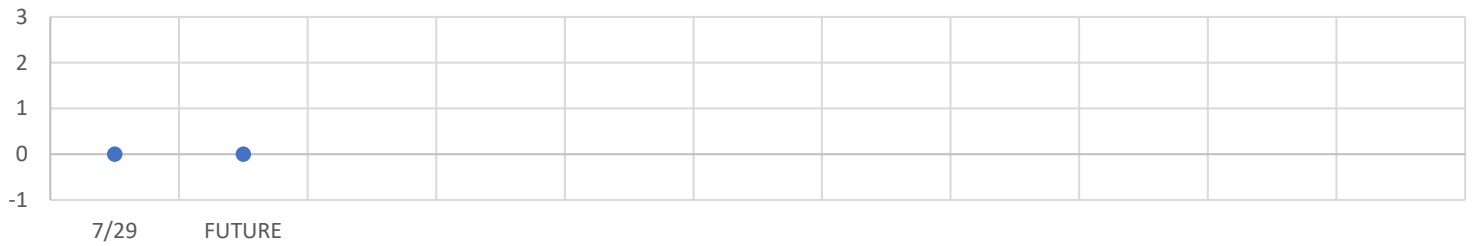
### Site 22 Shift



### Site 22 Horizontal Movement



### Site 22 Vertical Movement



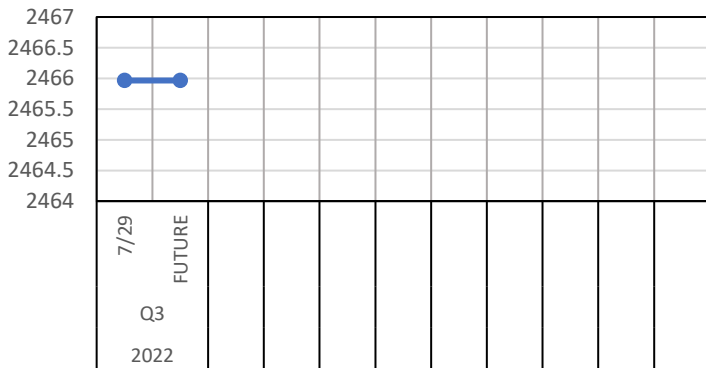




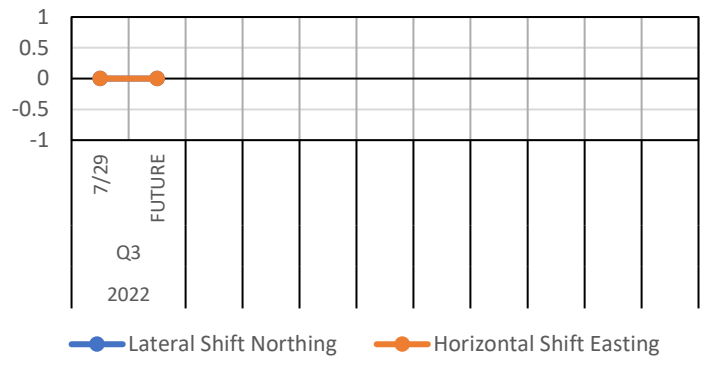
### Site 23 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
90006	2022	Q3	7/29	443647.643	1524050.101	46°52'09.828179"	102°16'37.593487"	2465.966	0	0	0
91006			FUTURE	443647.643	1524050.101			2465.966	0	0	0

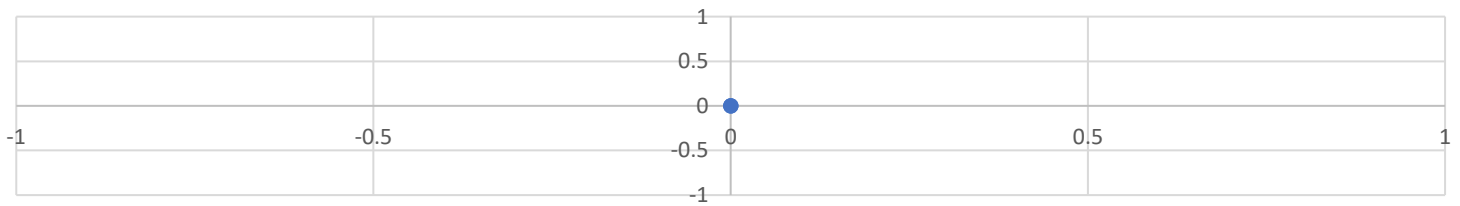
### Site 23 Elevation



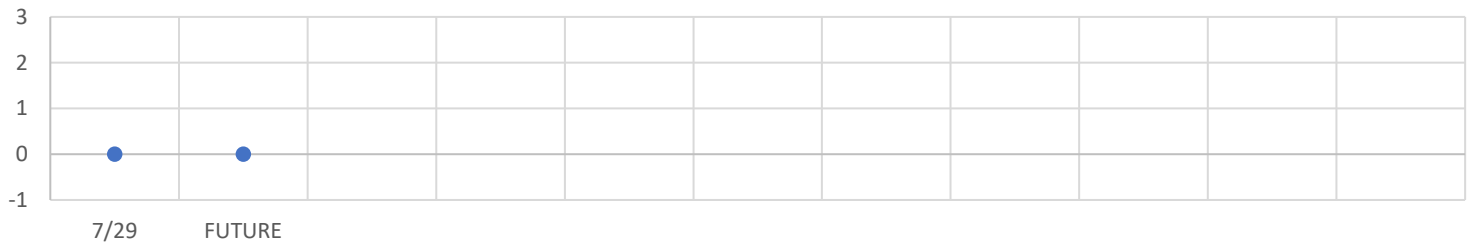
### Site 23 Shift



### Site 23 Horizontal Movement



### Site 23 Vertical Movement

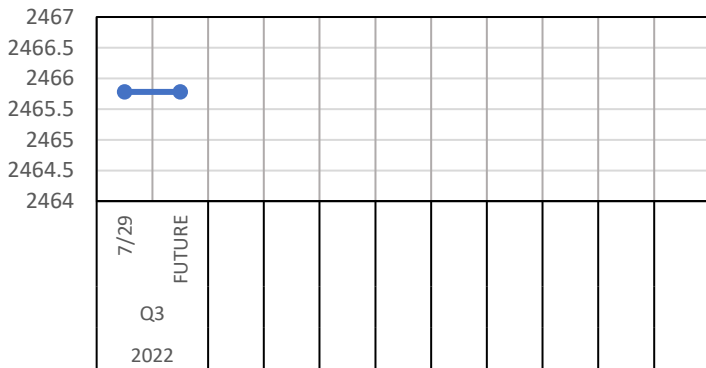




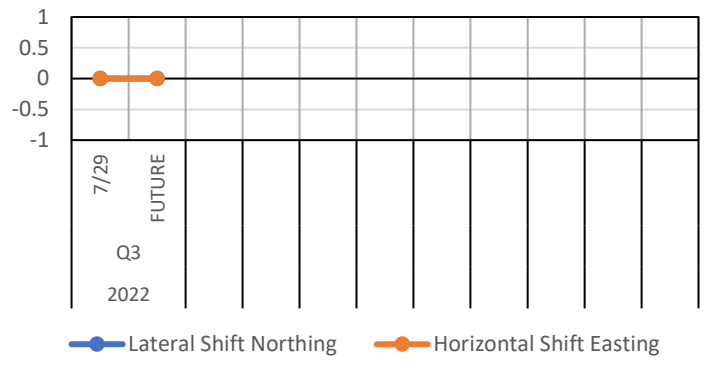
### Site 24 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
90007	2022	Q3	7/29	443650.246	1524053.638	46°52'09.854656"	102°16'37.543438"	2465.78	0	0	0
91007			FUTURE	443650.246	1524053.638			2465.78	0	0	0

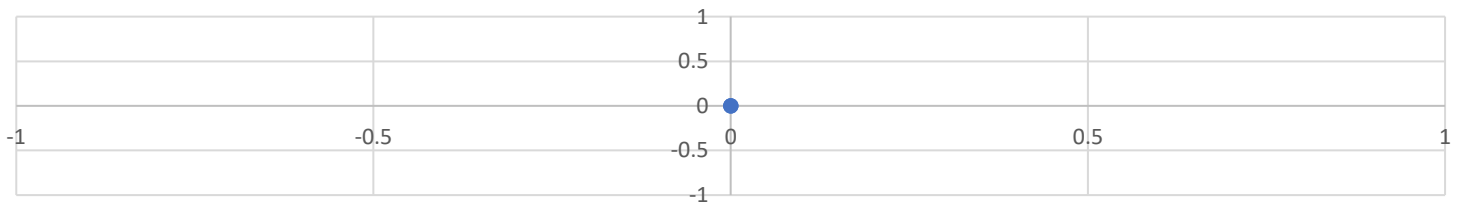
### Site 24 Elevation



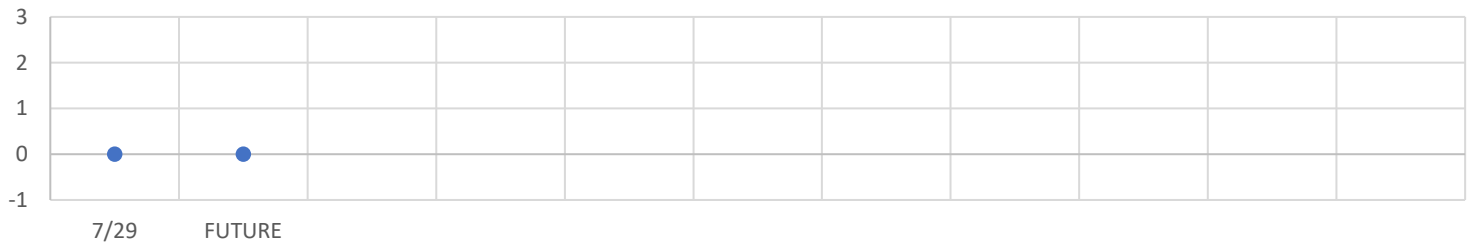
### Site 24 Shift



### Site 24 Horizontal Movement



### Site 24 Vertical Movement

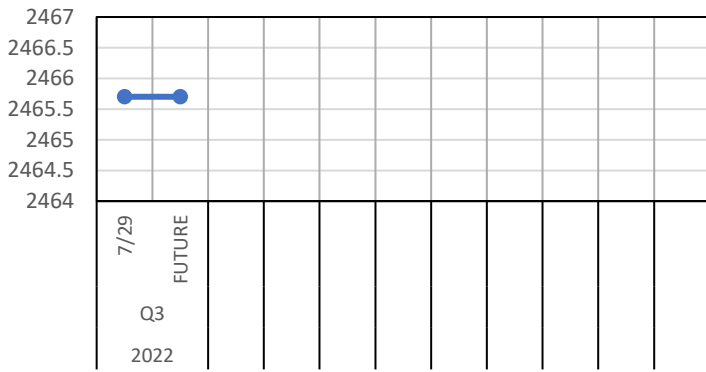




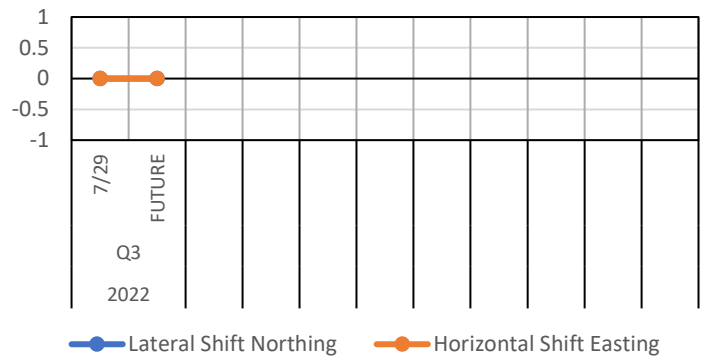
### Site 25 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
90008	2022	Q3	7/29	443649.749	1524056.795	46°52'09.850456"	102°16'37.497849"	2465.701	0	0	0
91008			FUTURE	443649.749	1524056.795			2465.701	0	0	0

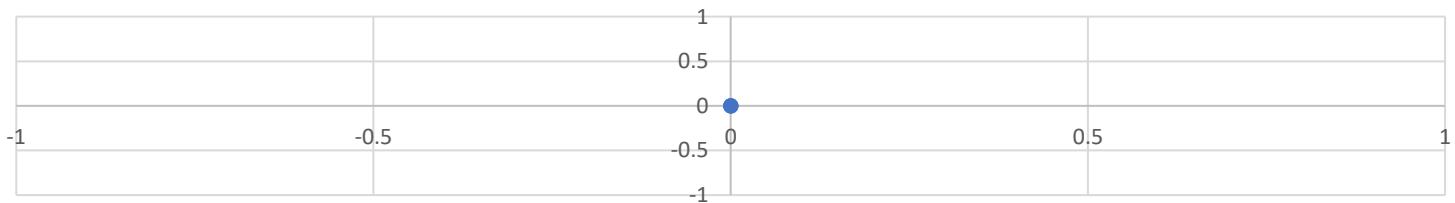
Site 25 Elevation



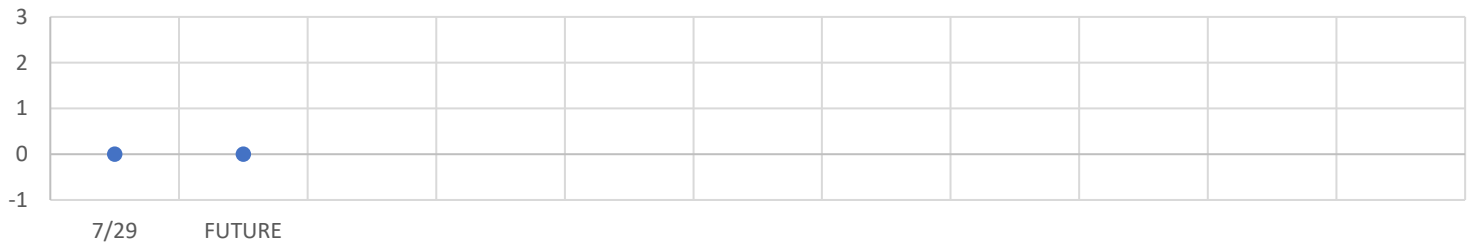
Site 25 Shift



Site 25 Horizontal Movement



Site 25 Vertical Movement

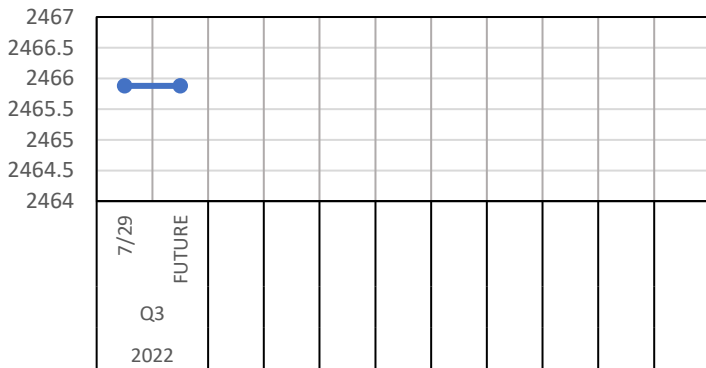




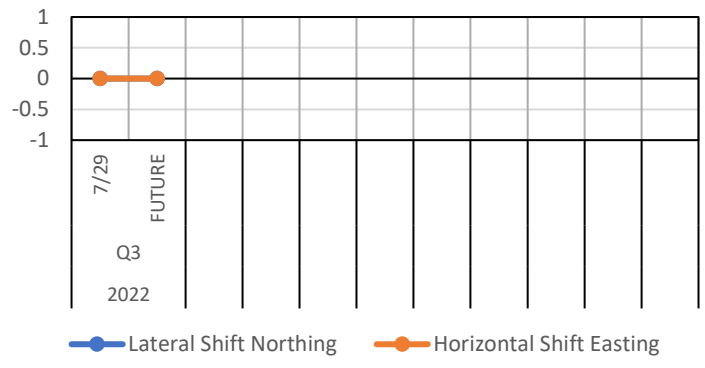
### Site 26 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
90009	2022	Q3	7/29	443649.816	1524060.66	46°52'09.851981"	102°16'37.442255"	2465.878	0	0	0
91009			FUTURE	443649.816	1524060.66			2465.878	0	0	0

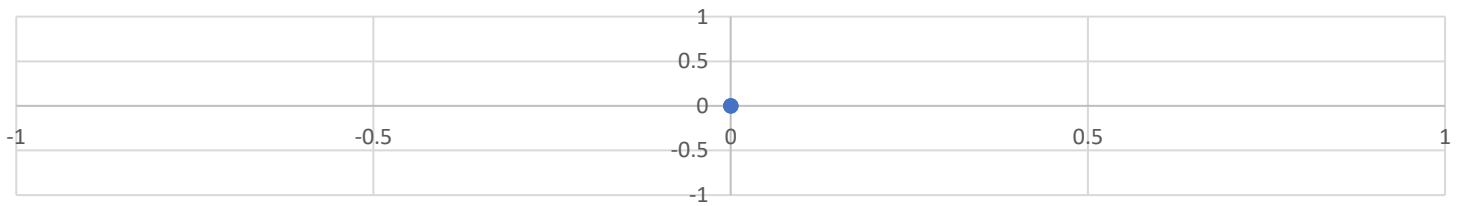
### Site 26 Elevation



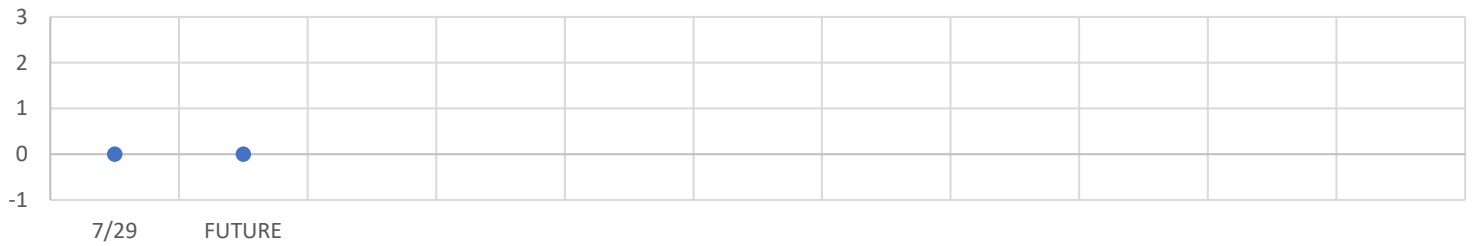
### Site 26 Shift



### Site 26 Horizontal Movement



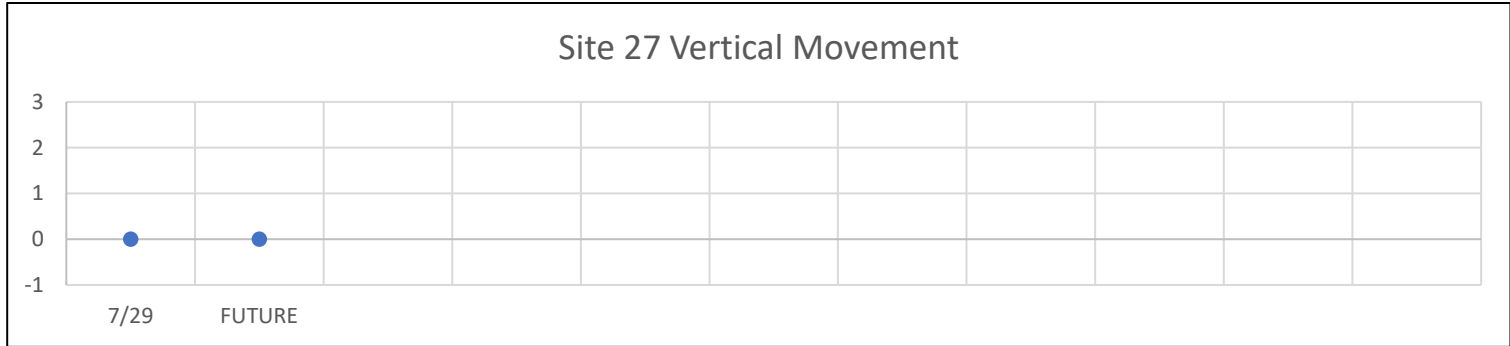
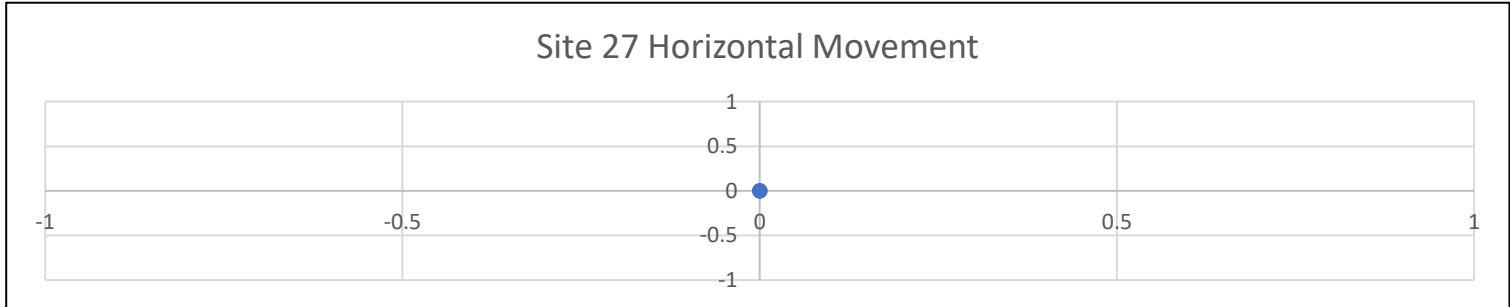
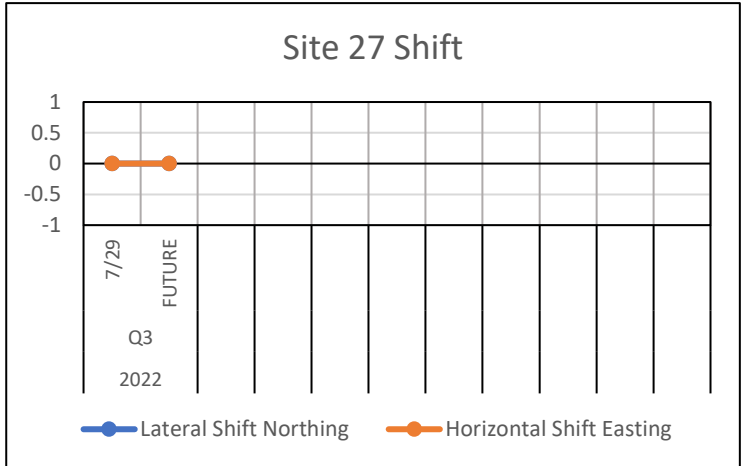
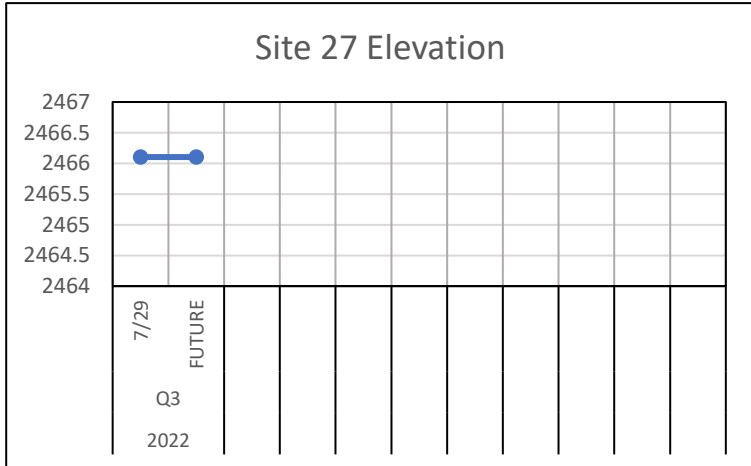
### Site 26 Vertical Movement





### Site 27 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
90010	2022	Q3	7/29	443646.558	1524063.318	46°52'09.820422"	102°16'37.402947"	2466.103	0	0	0
91010			FUTURE	443646.558	1524063.318			2466.103	0	0	0

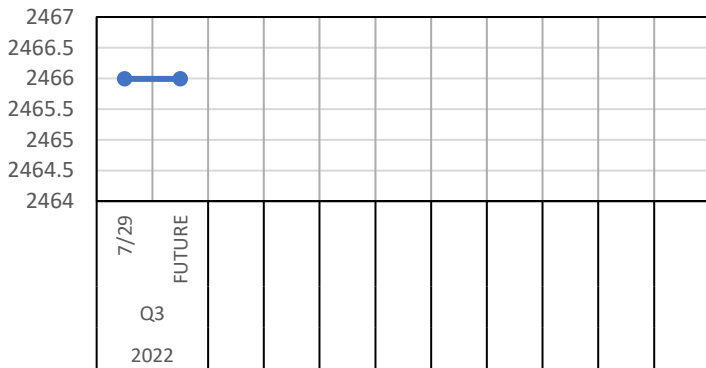




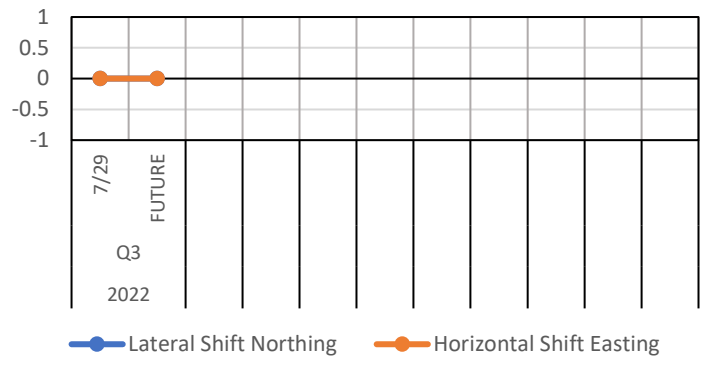
### Site 28 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
90011	2022	Q3	7/29	443642.872	1524066.023	46°52'09.784651"	102°16'37.362824"	2465.992	0	0	0
91011			FUTURE	443642.872	1524066.023			2465.992	0	0	0

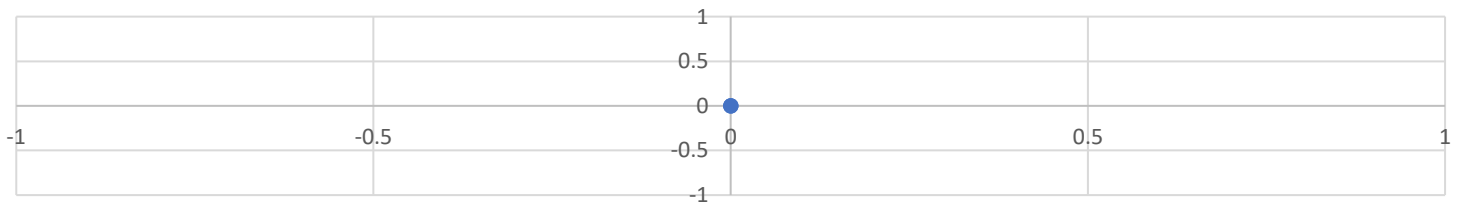
### Site 28 Elevation



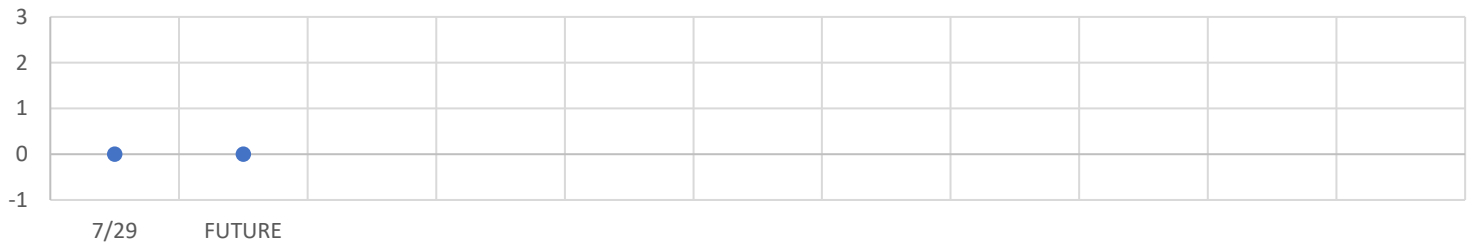
### Site 28 Shift



### Site 28 Horizontal Movement



### Site 28 Vertical Movement

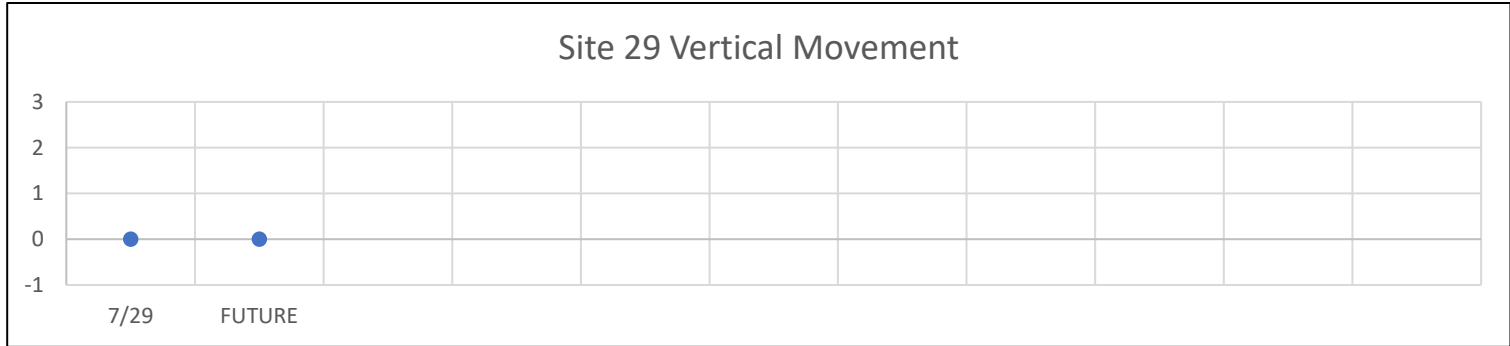
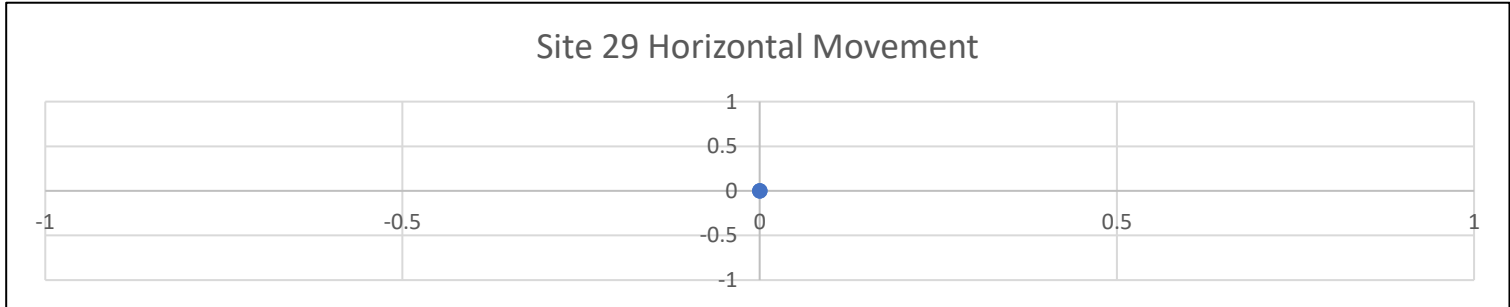
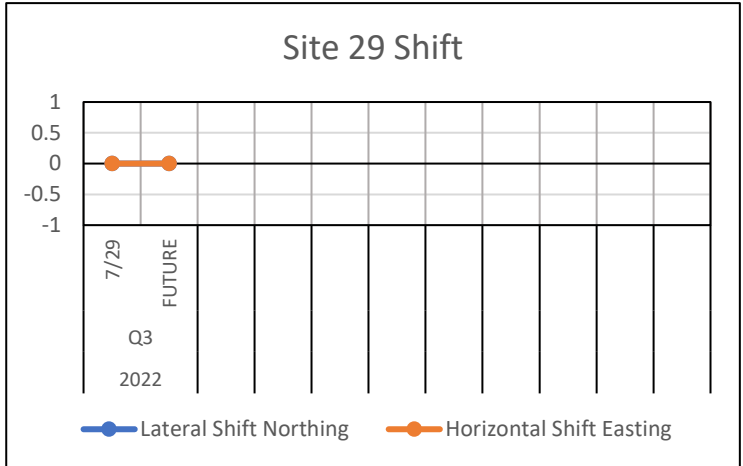
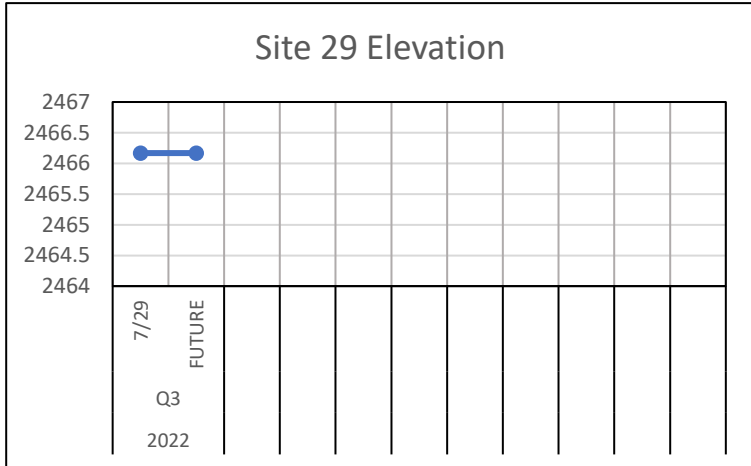






### Site 29 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
90012	2022	Q3	7/29	443639.733	1524065.487	46°52'09.753554"	102°16'37.369514"	2466.168	0	0	0
91012			FUTURE	443639.733	1524065.487			2466.168	0	0	0

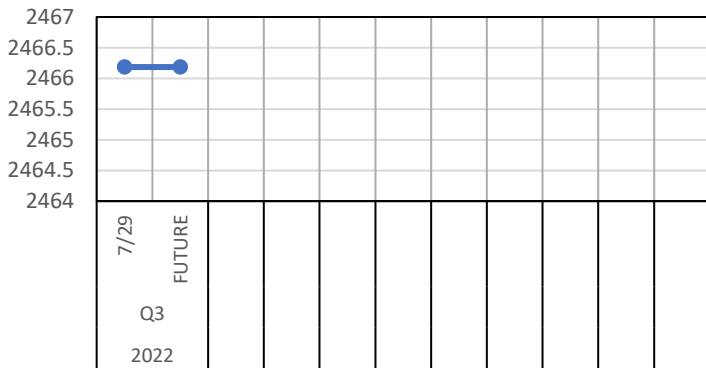




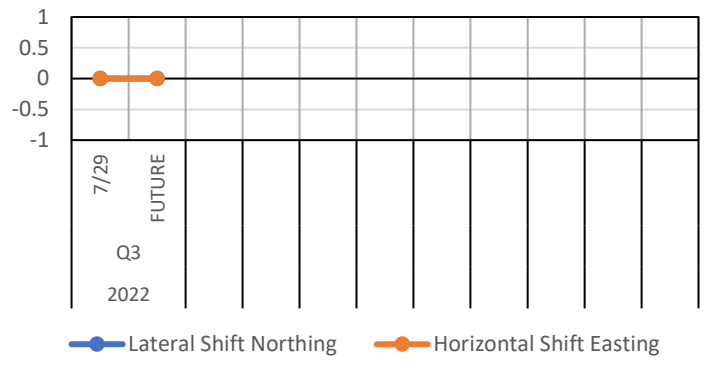
### Site 30 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
90013	2022	Q3	7/29	443636.035	1524065.306	46°52'09.717019"	102°16'37.370915"	2466.185	0	0	0
91013			FUTURE	443636.035	1524065.306			2466.185	0	0	0

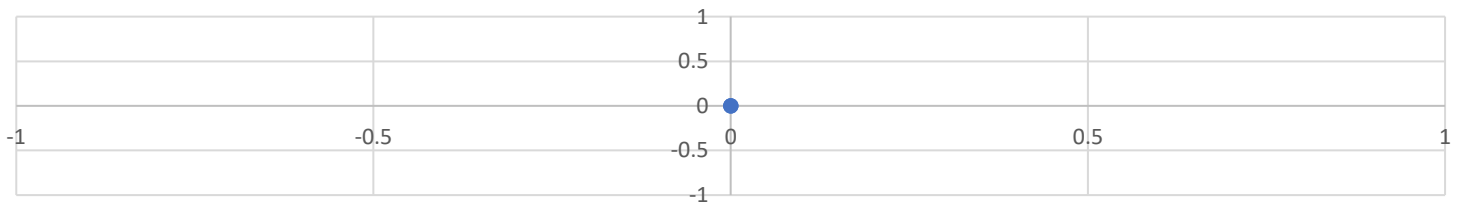
### Site 30 Elevation



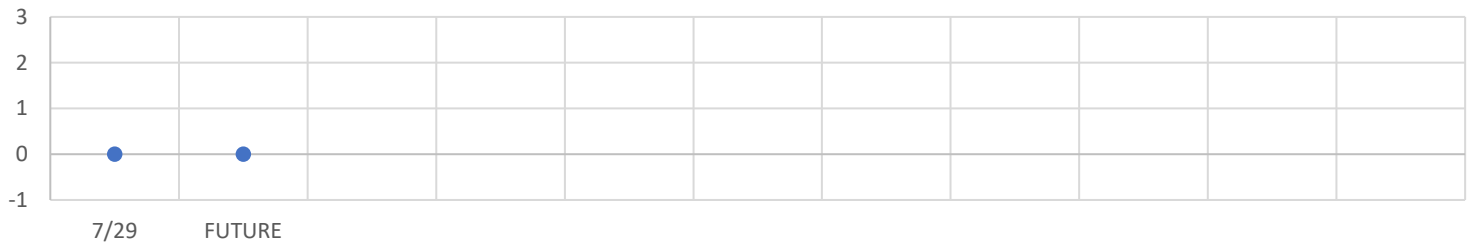
### Site 30 Shift



### Site 30 Horizontal Movement



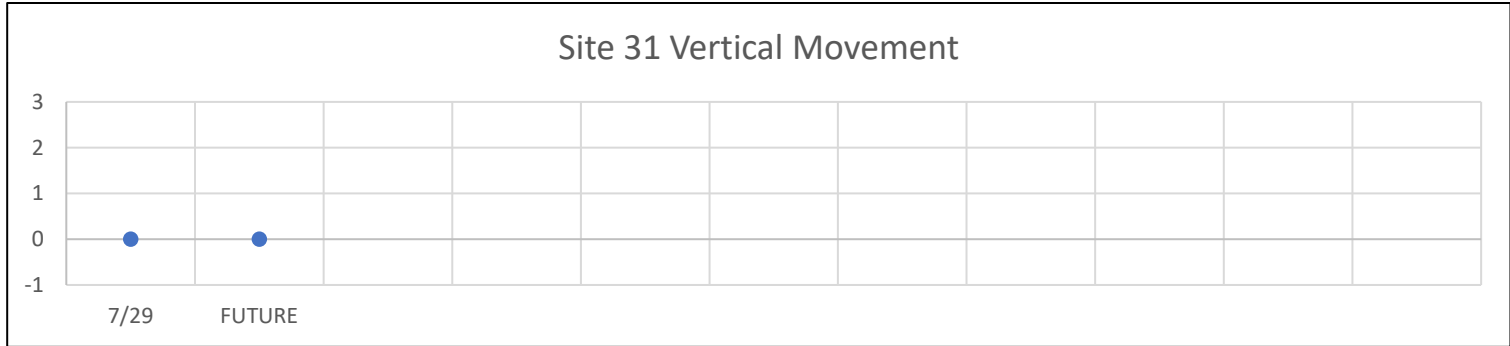
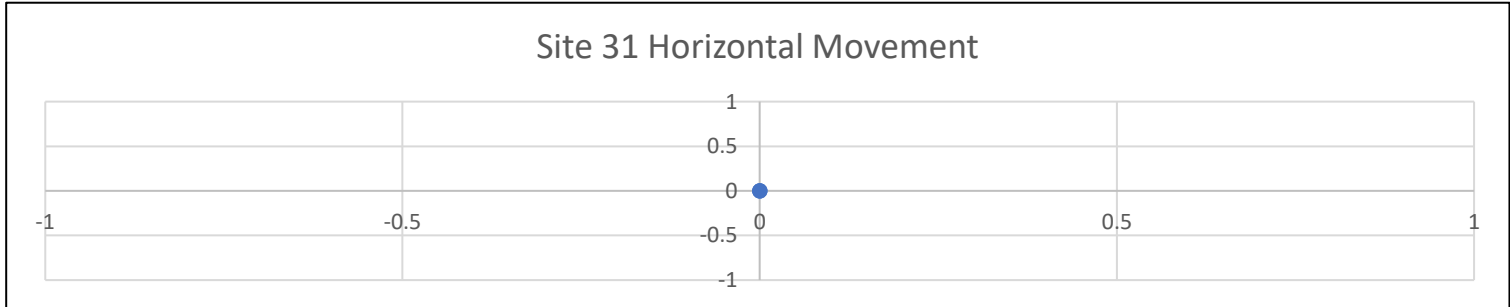
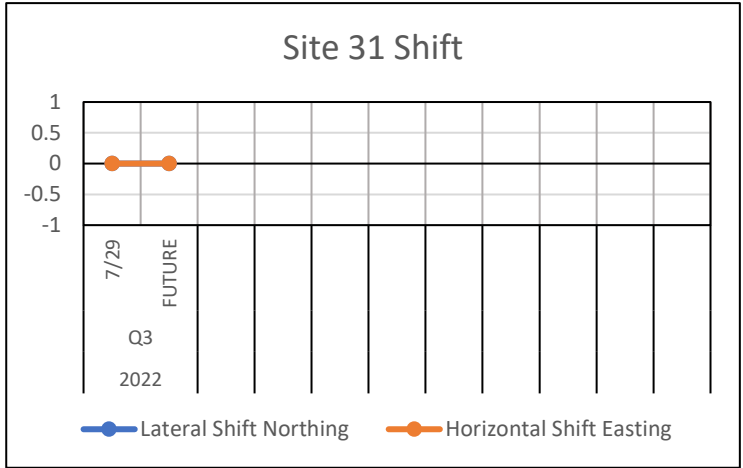
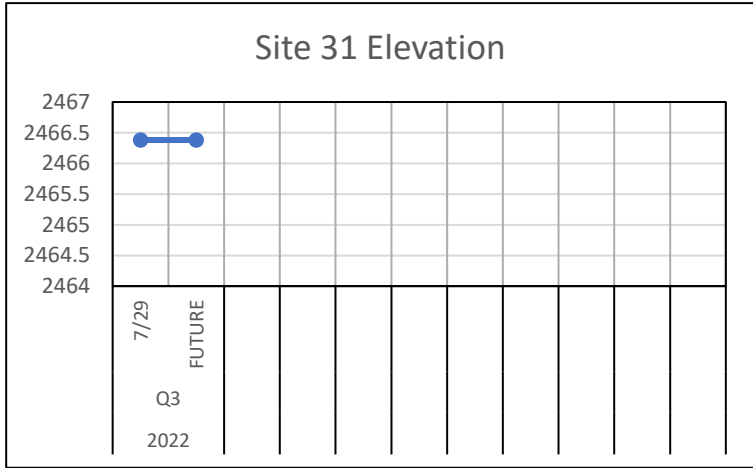
### Site 30 Vertical Movement





### Site 31 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
90014	2022	Q3	7/29	443633.484	1524062.238	46°52'09.691160"	102°16'37.414231"	2466.381	0	0	0
91014			FUTURE	443633.484	1524062.238			2466.381	0	0	0

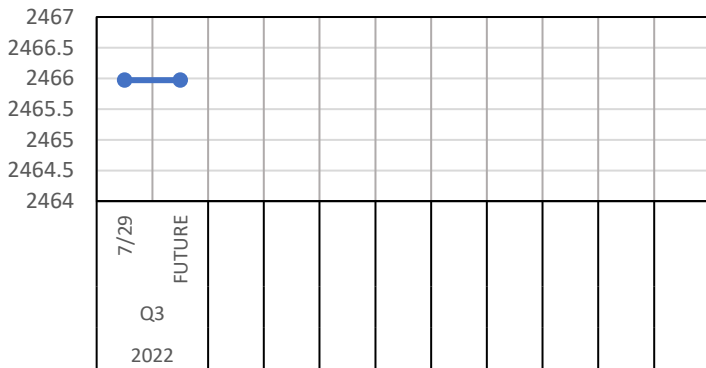




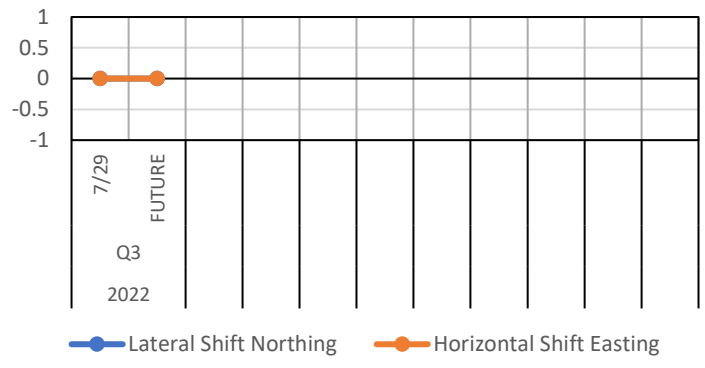
### Site 32 Data

Survey Point	Year	Quarter	Date	Lateral N	Horizontal E	Latitude (N)	Longitude (W)	Elevation	Lateral Shift Northing	Horizontal Shift Easting	Elevation Change
90015	2022	Q3	7/29	443630.866	1524058.507	46°52'09.664491"	102°16'37.467066"	2465.971	0	0	0
91015			FUTURE	443630.866	1524058.507			2465.971	0	0	0

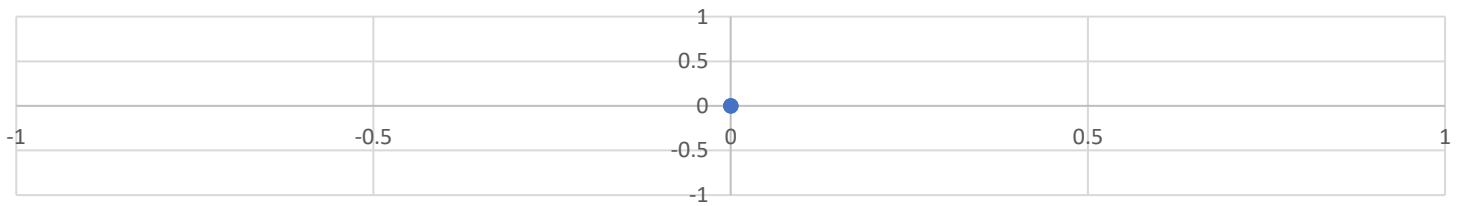
### Site 32 Elevation



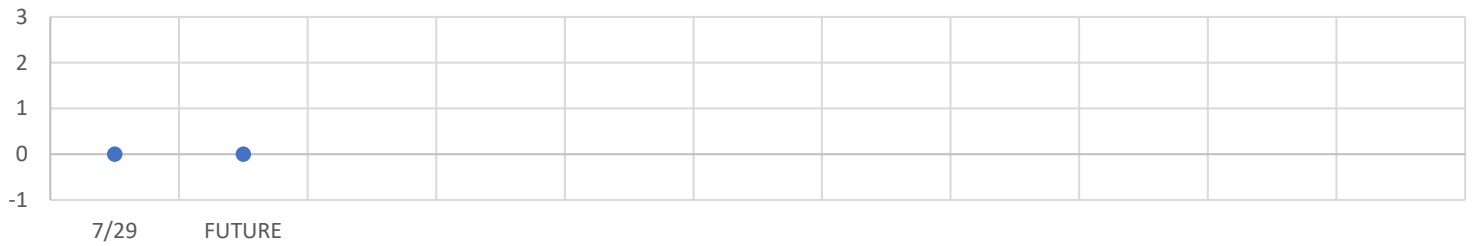
### Site 32 Shift



### Site 32 Horizontal Movement



### Site 32 Vertical Movement





# GEOPHYSICAL EXPLORATION SUNDRY NOTICE - FORM GE 4

INDUSTRIAL COMMISSION OF NORTH DAKOTA  
OIL AND GAS DIVISION  
600 EAST BOULEVARD DEPT 405  
BISMARCK, ND 58505-0840  
SFN 51458 (03-2011)

PERMIT # 970304

Received

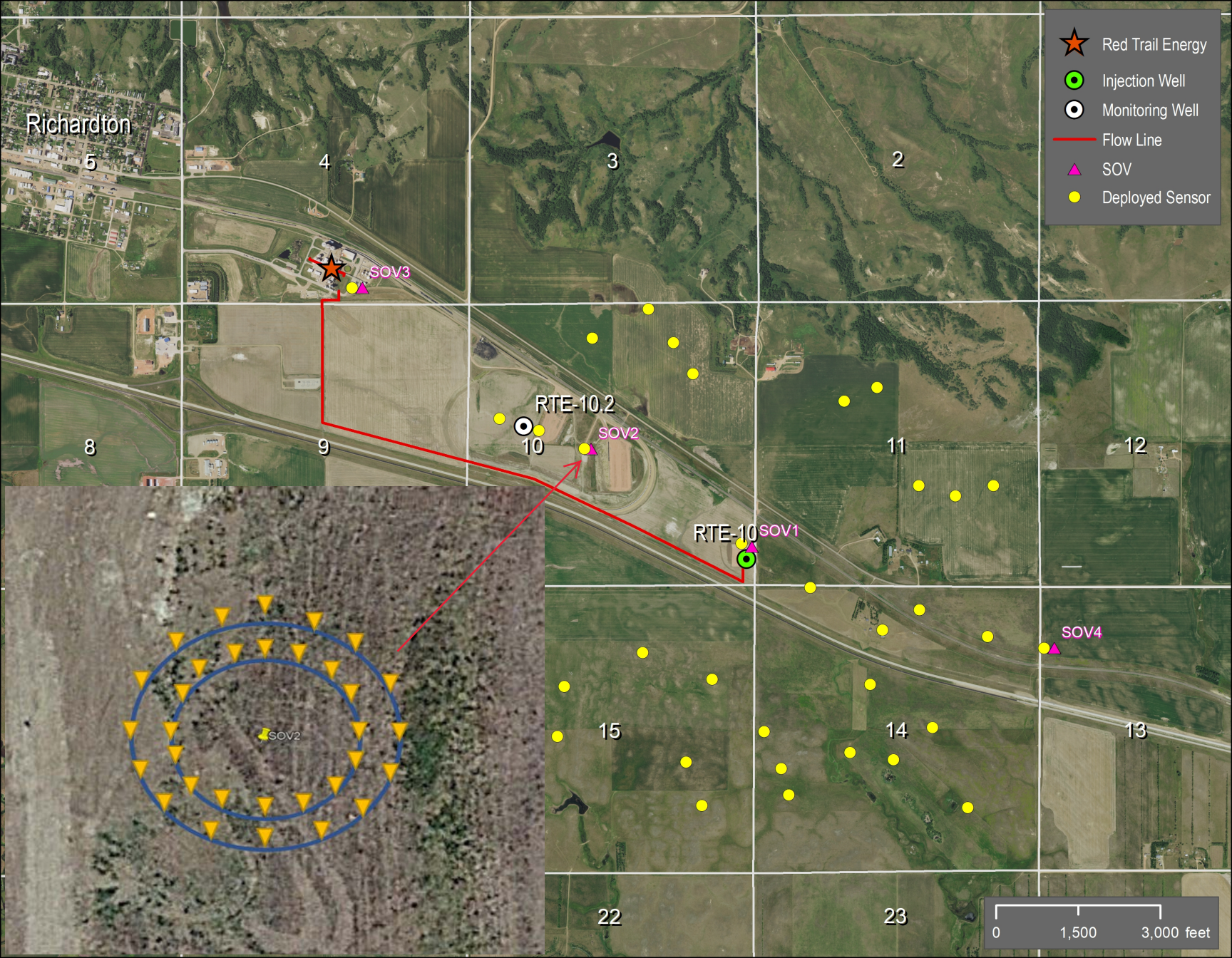
JUL 19 2022

Project Name <b>Red Trail Energy SASSA</b>	
County <b>Stark County</b>	<b>ND Oil &amp; Gas Division</b>
Supplemental Information	
<p>This supplemental request concerns the installation of 36 geophones in two concentric circular patterns at diameter of 3 m and 6 m around the permanently installed surface orbital vibrator, SOV2. The objective of this monitoring activity is to better understand the wavefield emerging from the SOV and aid in processing of acquired seismic DAS-SOV data. SOV2 is located at Longitude -102.2770844025 Latitude 46.869377429, X_32020: 1555560.15401006, Y_32020: -42525.5439456272. The geophones will be buried at depths less than or equal to 2 feet so as to minimize noise from wind.</p> <p>Class VI Solutions, Inc. (711 Jean St, Oakland CA 94610) will be installing the geophones, while working with scientists from the US Department of Energy Lawrence Berkeley National Laboratory to acquire and process the seismic data.</p> <p>The duration of this activity is 2 months. The work will take place the week of July 25th, 2022.</p> <p><i>Temporary array is entirely on Red Trail property per David Burns.</i></p> <p><i>* must submit latitude &amp; longitude of each geophone after placement.</i></p>	

Company Red Trail Energy	Telephone Number 701-974-3308		
Address 3682 Highway 8 South			
City Richardton	State ND	Zip Code 58652	
Signature <i>David Burns</i>	Printed Name David Burns		
Title Regulatory	Date July 19, 2022		
Email Address daveb@redtrailenergy.com			

FOR STATE USE ONLY	
<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date	<i>7/19/22</i>
By	<i>[Signature]</i>
Title	<b>Mineral Resources Permit Manager</b>





- ★ Red Trail Energy
- Injection Well
- Monitoring Well
- Flow Line
- ▲ SOV
- Deployed Sensor

Richardton

RTE-10.2

10

SOV2

RTE-10

SOV1

SOV4

SOV2

15

14

13

22

23







**GEOPHYSICAL EXPLORATION SUNDRY NOTICE - FORM GE 4**

INDUSTRIAL COMMISSION OF NORTH DAKOTA  
OIL AND GAS DIVISION  
600 EAST BOULEVARD DEPT 405  
BISMARCK, ND 58505-0840  
SFN 51458 (03-2011)

Received

PERMIT # 97-0304

APR 4 2022

Project Name <b>RTE SASSA Baseline</b>	<b>ND Oil &amp; Gas Division</b>
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County <b>Stark County</b>	
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Supplemental Information

The project's last phase will begin Wednesday April 6th, 2022.  
 The EERC team will start setting out the node and sensor arrays.  
 There will be up to 120 arrays set out in the fence rows and field edges of the project area.  
 The arrays will be accessed on foot 6-8 times per year to download the recorded data.  
 The four Surface Orbital Vibrators(SOV) will operate up to 2 hours per day. Two to six hours per week is the likely range of operation.  
 The project will be completed by November 2024 with removal of the arrays.

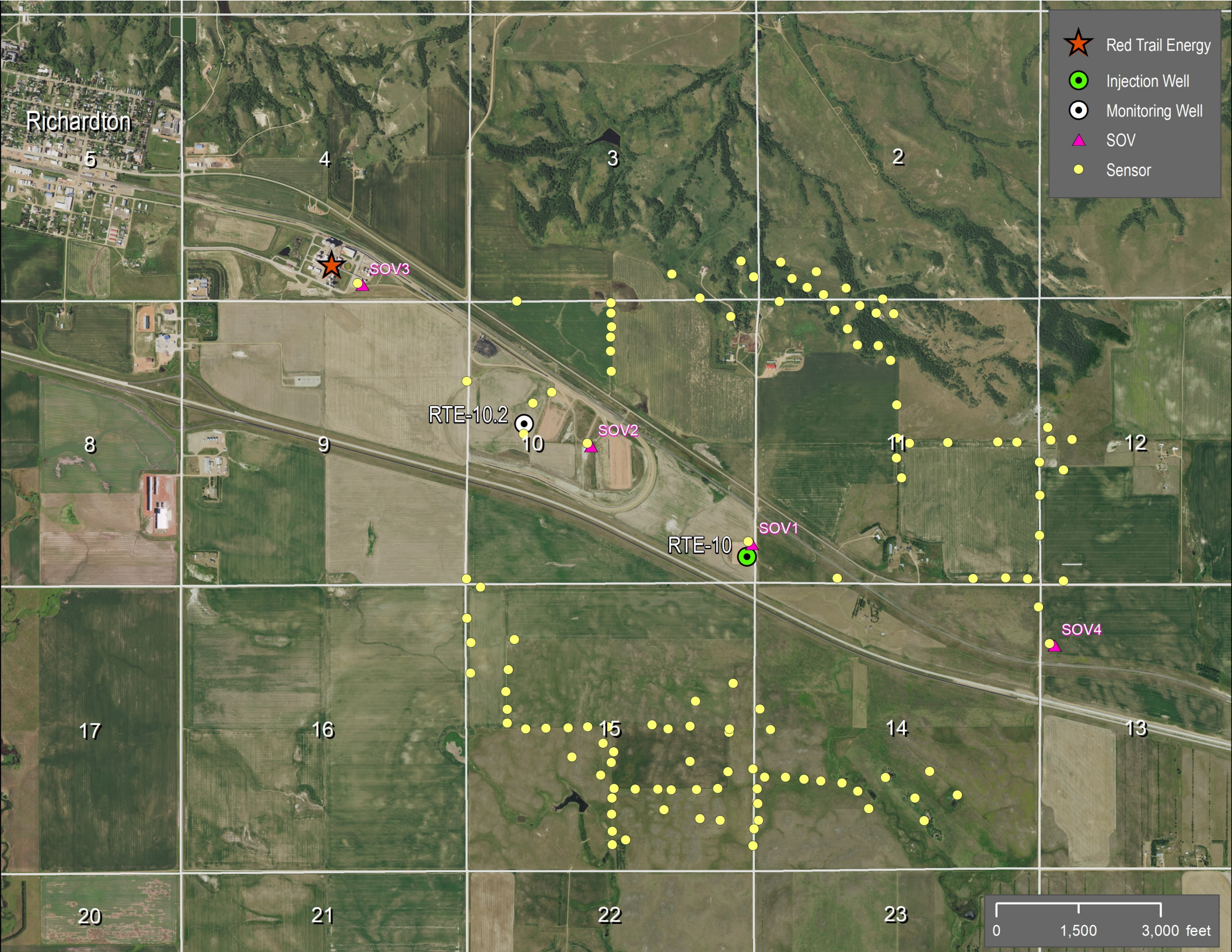
Landowners that have arrays on their land were notified March 30th and 31st, 2022.  
 Dave Burns will be meeting with landowners starting April 4th, 2022.  
 Red Trail will provide the updated array location map and review it with the landowners.  
 We have signed agreements with all landowners for the project.

Attached is the updated project map.

Company <b>Red Trail Energy</b>		Telephone Number <b>(701) 974-3308</b>	
Address <b>3682 Highway 8 South</b>			
City <b>Richardton</b>	State <b>ND</b>	Zip Code <b>58652</b>	
Signature 	Printed Name <b>David Burns</b>		
Title <b>Regulatory</b>	Date <b>April 4, 2022</b>		
Email Address <b>daveb@redtrailenergy.com</b>			

FOR STATE USE ONLY	
<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date <b>4/4/22</b>	
By 	
Title <b>Mineral Resources Permit Manager</b>	









**GEOPHYSICAL EXPLORATION COMPLETION REPORT - FORM GE 6A**  
 INDUSTRIAL COMMISSION OF NORTH DAKOTA  
 OIL AND GAS DIVISION  
 600 EAST BOULEVARD DEPT 405  
 BISMARCK, ND 58505-0840  
 SFN 51456 (03-2011)

Received

DEC 20 2021

Permit No. <b>970304</b>		<b>ND Oil &amp; Gas Division</b>
Shot Hole Operations <b>NA</b>	*Non-Explosive Operations <b>4 permanent SOVs</b>	

**SECTION 1**

Geophysical Contractor <b>Red Trail Energy</b>	
Project Name and Number <b>RTE SASSA Baseline</b>	County(s) <b>Stark</b>
Township(s) <b>T139N</b>	Range(s) <b>R92W</b>
Drilling and Plugging Contractors <b>EERC</b>	
Date Commenced <b>November 30, 2021</b>	Date Completed <b>December 5, 2021</b>

**SECTION 2**

First S.P. #	Last S.P. #											
Loaded Holes (Undetonated Shot Points)												
S.P.#s												
Charge Size												
Depth												
Reasons Holes Were Not Shot												

**SECTION 3**

Flowing Holes and/or Blowouts S.P.#s <b>NA</b>
Procedure for Plugging Flowing Holes and/or Blowouts
Include a 7.5 minute USGS topographic quadrangle map or a computer generated post-plot facsimile of the approximate scale displaying each individual shot hole, SP #, line #, and legal location.

\*Non-Explosive Operations - Complete Section 1 and Affidavit (Form GE 6B).



**GEOPHYSICAL EXPLORATION AFFIDAVIT OF COMPLETION REPORT - FORM GE 6B**  
 INDUSTRIAL COMMISSION OF NORTH DAKOTA  
 OIL AND GAS DIVISION  
 600 EAST BOULEVARD DEPT 405  
 BISMARCK, ND 58505-0840  
 SFN 51456 (03-2011)

PERMIT NAME (Required): RTE SASSA Baseline

PERMIT NUMBER: 979304

**AFFIDAVIT OF COMPLETION (GEOPHYSICAL CONTRACTOR)**

Received  
 DEC 20 2021  
 ND Oil & Gas  
 Division

STATE OF North Dakota )  
 )  
 COUNTY OF Stark )

Before me, Stacy Wagner, a Notary Public in and for the said  
 County and State, this day personally appeared Dustin Willett

who being first duly sworn, deposes and says that (s)he is employed by  
Red Trail Energy, that (s)he has read North Dakota

Century Code Section 38-08.1, that the foregoing seismic project has been completed in  
 accordance with North Dakota Administrative Code Rule 43-02-12 and that the statements on  
 the reverse side of this document are true.

  
 Geophysical Contractor Representative

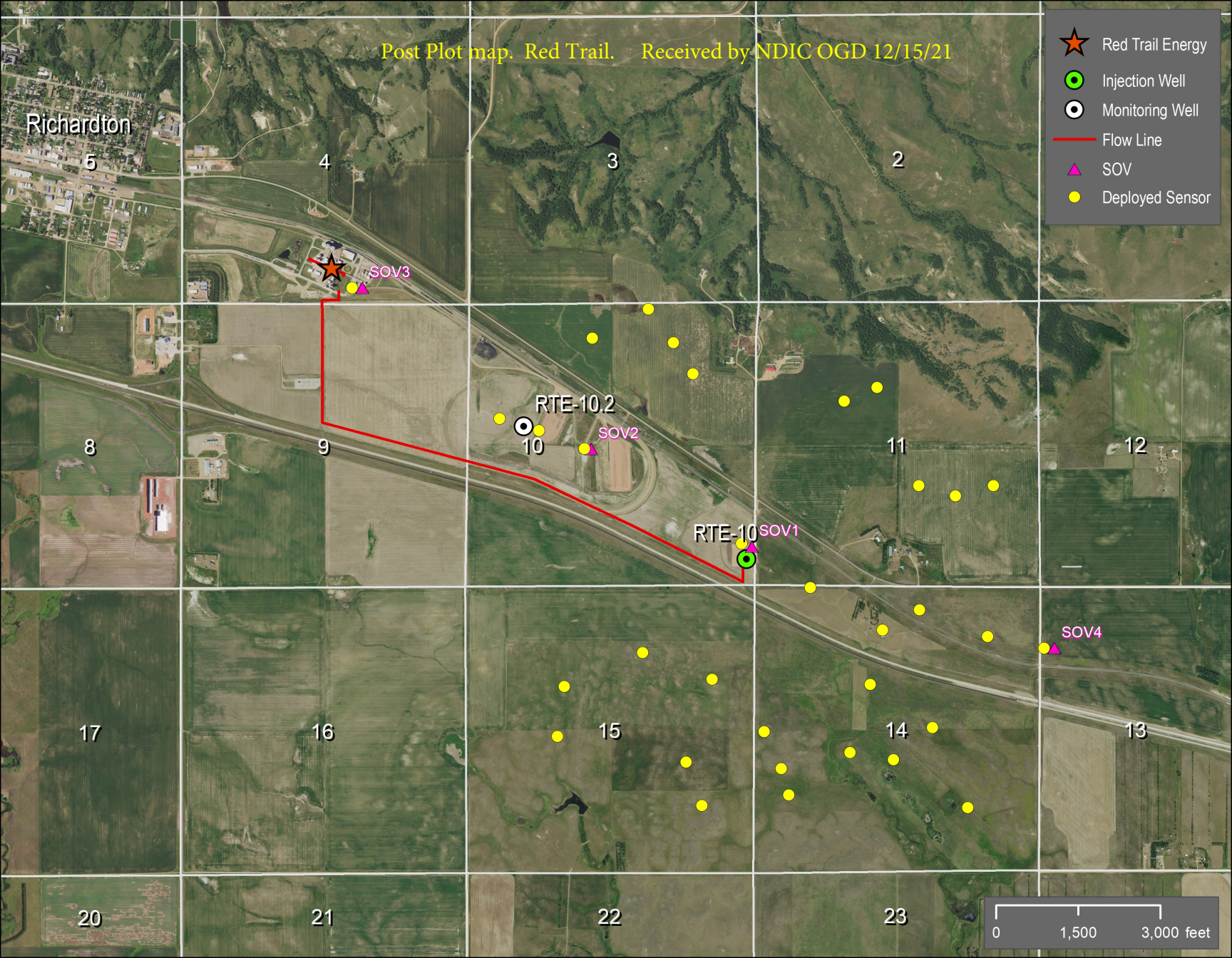
Subscribed in my presence and sworn before me this 16<sup>th</sup> day of December, 2021

**STACY WAGNER**  
 Notary Public  
 State of North Dakota  
 My Commission Expires May 20, 2025

Notary Public 

My Commission Expires May 20, 2025

Post Plot map, Red Trail. Received by NDIC OGD 12/15/21



- ★ Red Trail Energy
- Injection Well
- Monitoring Well
- Flow Line
- ▲ SOV
- Deployed Sensor

Richardton

RTE-10.2

RTE-10

SOV3

10

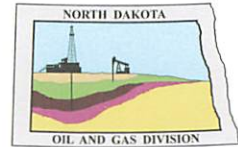
SOV2

SOV1

SOV4







November 16, 2021

Mr. Dustin Willett  
COO  
Red Trail Energy, LLC  
3682 Highway 8 South  
Richardton, ND 58652

RE: RTE SASSA Baseline  
GEOPHYSICAL EXPLORATION PERMIT #97-0304  
STARK COUNTY  
NON-EXPLOSIVE METHODS

Dear Mr. Willett:

Be advised that your Geophysical Exploration permit is conditionally approved; effective for one year from November 16, 2021.

**PERMIT STIPULATIONS:**

- **PURSUANT TO NDAC 43-02-12-05 (DISTANCE RESTRICTION)**
  - Non-explosive exploration methods may not be conducted less than 300 feet from water wells, buildings, underground cisterns, pipelines, and flowing springs.
- In addition, pursuant to NDAC 43-02-12-06 (NOTIFICATION OF WORK PERFORMED), "The director is authorized to suspend operations of the entire geophysical project, or any portion thereof, if further activity will cause excessive damage to the surface of the land".

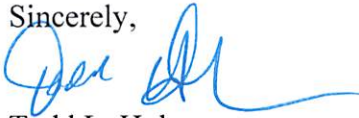
Review the following conditions for your permit:

1. A pre-program meeting with state seismic inspector Tom Torstenson is required. You must contact him at 701-290-1546 (cell) or 701-227-7436 at least 24 hours prior to any exploration operations. Also, a copy of the entire permit is required for all contractors at the pre-program meeting.
2. All variances for distance restrictions are to be furnished, and a pre-plot map displaying any source points that do not comply with the distance restriction rule must be supplied to the inspector.
3. The following information must be submitted within 30 days of the completion of the project by the Geophysical Company:
  - a. Completion Report,

- b. Completion Affidavit,
  - c. Post Plot Map. It must show all water wells, buildings, underground cisterns, pipelines, and flowing springs that fall within the program area and within one half mile of the perimeter of the program.
  - d. Must provide a GIS layer using NAD83 in an Esri shape file format and an Image file (.img) on a Flash Drive or email: [tstorsenson@nd.gov](mailto:tstorsenson@nd.gov) with all source and receiver points,
4. The permit agent shall notify the operator of the land at least seven days before commencement of any geophysical exploration activity, unless waived by mutual agreement of both parties. The notice must include the approximate time schedule and the location of the planned activity.
  5. Information regarding the location of water wells, springs, etc.; refer to the following ND State Water Commission Mapservice website, at: <http://mapservice.swc.state.nd.us/>
  6. The entire permit can be viewed, as well as the status of various seismic projects in the state, at: <https://www.dmr.nd.gov/oilgas/seismic/seismicstats.asp>

Should you have any questions regarding this matter, feel free to contact me at 701-328-8020, or Tom Torstenson at the number listed in paragraph 1.

Sincerely,



Todd L. Holweger  
Permit Manager



Received

NOV 15 2021

ND Oil & Gas  
Division



**GEOPHYSICAL EXPLORATION PERMIT - FORM GE 1**

INDUSTRIAL COMMISSION OF NORTH DAKOTA  
OIL AND GAS DIVISION  
600 EAST BOULEVARD DEPT 405  
BISMARCK, ND 58505-0840  
SFN 51459 (03-2011)

1) a. Company <b>Red Trail Energy, LLC</b>		Address <b>3682 Highway 8 South, Richardton, ND 58652</b>			
Contact <b>Dustin Willett</b>		Telephone <b>(701) 974-3308</b>		Fax <b>(701) 974-3309</b>	
Surety Company <b>Harco National Insurance</b>		Bond Amount <b>\$25,000.00</b>		Bond Number <b>0740216</b>	
2) a. Subcontractor(s) <b>UND EERC</b>		Address <b>15 North 23rd Street Stop 9018, Grand Forks</b>		Telephone <b>(701) 777-5000</b>	
b. Subcontractor(s) <b>Class VI Solutions</b>		Address <b>711 Jean Street, Oakland, CA 94610</b>		Telephone <b>(510) 520-2618</b>	
3) Party Manager <b>Cesar Barajas-Olalde</b>		Address (local) <b>15 North 23rd Street Stop 9018, Grand Forks</b>		Telephone (local) <b>(701) 777-5414</b>	
4) Project Name or Line Numbers <b>RTE SASSA Baseline</b>					
5) Exploration Method (Shot Hole, Non-Explosive, 2D, <u>3D</u> Other) <b>Surface Orbital Vibe (SOV)</b>					
6) Distance Restrictions (Must check all that apply)					
<input checked="" type="checkbox"/> 300 feet - NonExplosive - Distance setbacks apply to water wells, buildings, underground cisterns, pipelines, and flowing springs.					
<input type="checkbox"/> 660 feet - Shot Hole - Distance setbacks apply to water wells, buildings, underground cisterns, pipelines, and flowing springs.					
7) <del>Size of Hole</del> 3-D	<del>Amt of Charge</del>	<del>Depth</del>	<del>Source points per sq. mi.</del> <b>4</b>	No. of sq. mi. <b>6</b>	
Size of Hole 2-D	Amt of Charge	Depth	Source points per In. mi.	No. of In. mi.	
8) Approximate Start Date <b>November 29, 2021</b>			Approximate Completion Date <b>December 13, 2021</b>		

**THE COMMISSION MUST BE NOTIFIED AT LEAST 24 HOURS IN ADVANCE OF COMMENCEMENT OF GEOPHYSICAL OPERATIONS**

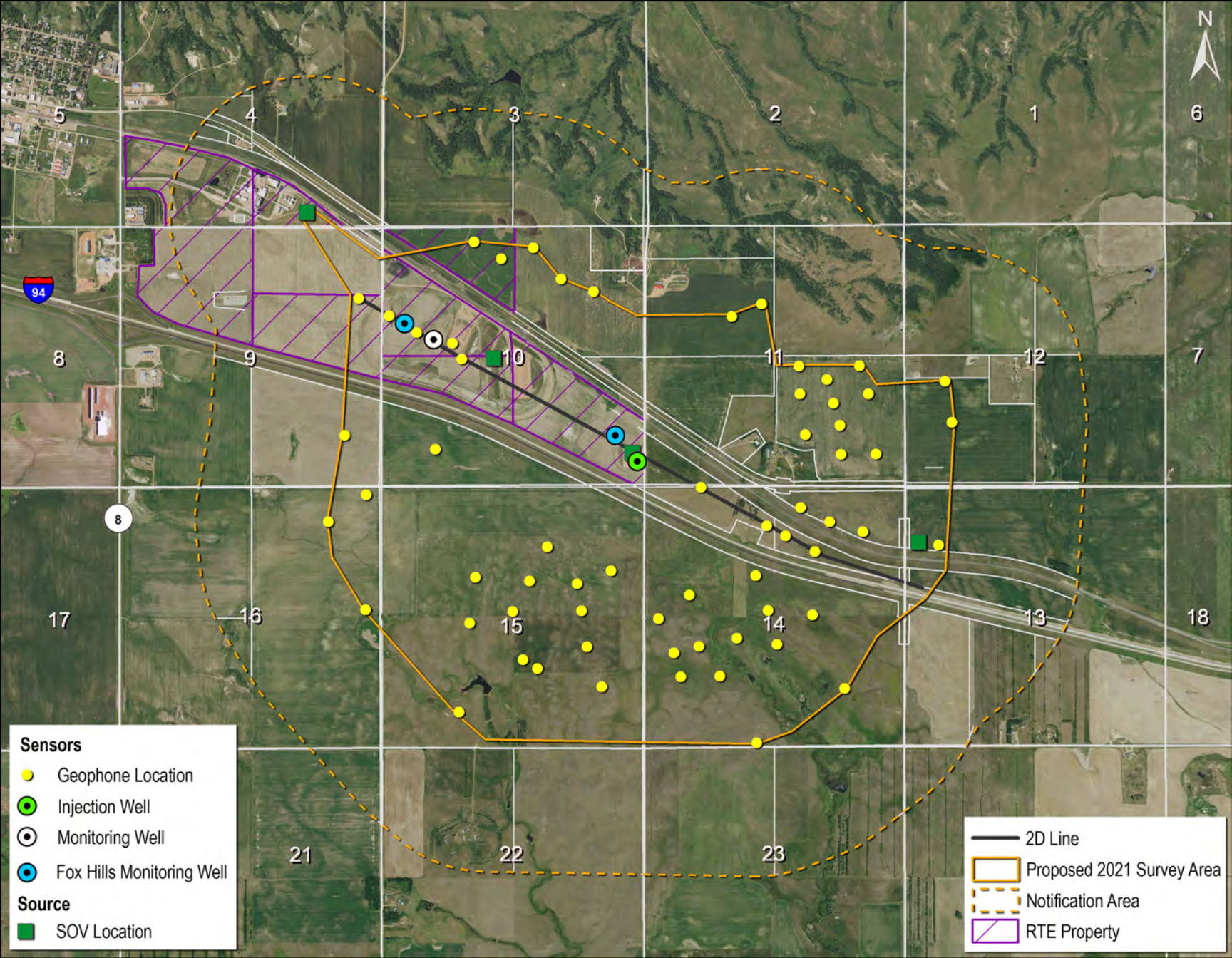
9) Location of Proposed Project - County <b>STARK</b>					
Section(s), Township(s) & Range(s)	Section <b>4,12,11,10,9,16,15,14,13</b>	T.	<b>139N</b>	R.	<b>92W</b>
	Section	T.		R.	
	Section	T.		R.	
	Section	T.		R.	
	Section	T.		R.	
	Section	T.		R.	

I hereby swear or affirm that the information provided is true, complete and correct as determined from all available records.			Date <b>10-27-21</b>
Signature 	Printed Name <b>Dustin Willett</b>	Title <b>Chief Operating Officer</b>	
Email Address(es) <b>dustin@redtrailenergy.com</b>			

(This space for State office use)		<p style="text-align: center;"><b>Permit Conditions</b></p> <p>* Permit in hand required at pre-program meeting with field inspector and be aware of all NDIC Rules and Regulations (i.e. distance restrictions).</p> <p>* See attached letter.</p>
Permit No. <b>97-0304</b>	Approval Date <b>11/16/21</b>	
Approved by 	Title <b>Mineral Resources Permit Manager</b>	

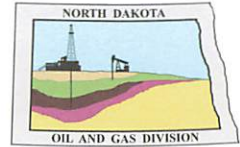
\*See Instructions On Reverse Side





- Sensors**
- Geophone Location
  - Injection Well
  - Monitoring Well
  - Fox Hills Monitoring Well
- Source**
- SOV Location

- 2D Line
- ▭ Proposed 2021 Survey Area
- - - Notification Area
- ▨ RTE Property



November 16, 2021

The Honorable Karen Richard  
Stark County Auditor  
P.O. Box 130  
Dickinson, ND 58602-0130

RE: Geophysical Exploration  
Permit #97-0304

Dear Ms. Richard:

Pursuant to Section 38-08.1-04.2 of the North Dakota Century Code, please be advised that Red Trail Energy, LLC was issued the above captioned permit on November 16, 2021, and will remain in effect for a period of one year. The entire permit can be viewed on our website at: <https://www.dmr.nd.gov/oilgas/seismic/seismicstats.asp>

Should you have any questions, please contact our office.

Sincerely,

A handwritten signature in blue ink, appearing to read "Todd L. Holweger".

Todd L. Holweger  
Permit manager





# RED TRAIL ENERGY, LLC

“Our Farms, Our Fuel, Our Future”

PO Box 11 Richardton, ND 58652 (701) 974-3308 FAX (701) 974-3309

November 15, 2020

Mr. Todd L. Holweger  
Permit Manager/Geophysical Supervisor  
North Dakota Industrial Commission Oil and Gas Division  
600 East Boulevard Avenue, Department 405  
Bismarck, ND 58505

Dear Mr. Holweger:

Subject: Geophysical Exploration Permit Affidavit

All landowners within the proposed Red Trail Energy, LLC (RTE) low-impact geophysical project area have been notified of the approximate schedule and location of the project and provided a written copy of North Dakota Century Code (NDCC) Section 38-08.1-04.1 (Exploration Permit) and NDCC Chapter 38-11.1 (Oil & Gas Production Damage Compensation). As required by NDCC Section 38-08.1-04.1 (4), landowners within ½ mile of the proposed project area, including rural landowners and landowners in the eastern half of Richardton, North Dakota, were provided written copies of the required NDCC sections. The latter group includes the Stark County Highway Department and the BNSF Railway Company, which have jurisdiction over lands adjacent to, but included in, the study area.

The proposed project will not place sensors on state roadways, railways, and associated rights-of-way. Sensors will not be placed on the county roadways. No mobile seismic sources will be used under this permit. No setback variances were sought for the county and state roadways and railways.

We look forward to working with you further with regard to this proposed geophysical project. Please contact me with any questions by phone at (701) 974-3308 or by e-mail at [dustin@redtrailenergy.com](mailto:dustin@redtrailenergy.com).

Sincerely,

Dustin Willett  
Chief Operating Officer

DW/cc

