

Bridgeton Landfill, LLC

Weekly Data Submittal

Week of January 18, 2015 – January 24, 2015

**Required by Section 52.F of Agreed Order, Case No. 13SL-CC01088
Effective May 13, 2013**

Contents:

**Attachment A – Leachate Levels in Leachate Collection Sumps
Attachment B – Temperature Monitoring Probe Analytical Charts
Attachment C – Gas Interceptor Wellhead Temperature Graphs
Attachment D – Neck-Area Gas Extraction Wellhead Temperature Graphs
Attachment E – North Quarry Gas Extraction Wellhead Data**

Provided Separately:

- Leachate Level in Leachate Collection Sump Raw Data Excel Spreadsheet**
- Temperature Monitoring Probe Raw Data Excel Spreadsheet**
- Gas Interceptor Well Reading Raw Data Excel Spreadsheet**
- Neck-Area Gas Extraction Well Data Excel Spreadsheet**
- North Quarry Gas Extraction Well Data Excel Spreadsheet**

January 30, 2015

Commentary on Data

Attachment A – Leachate Levels in Leachate Collection Sumps

Leachate Collection Sump (LCS)-1D, -3D, -4B, -5A, and -6B were partially or fully operational during the weekly reporting period. Several wells have level transducer(s) that are non-functional or are being calibrated.

The pump in LCS-2D was off during the weekly monitoring event due to an “over current” error.

Attachment B - Temperature Monitoring Probe Analytical Charts

The following TMPs indicated generally consistent profiles to previous observations: TMP-1, -2, -3, -4, -6, -8, -9, -10, -11, -14, -16, -17, and -18.

TMP-5, -7, -7R, -12, -13, and -15 have been removed from the presentation based on unreliable thermocouple measurements or other documented issues.

Attachment C - Gas Interceptor Wellhead Temperature Graphs

There are currently water circulation cooling loops (Heat Extraction System) installed in seven Gas Interceptor Wells (GIWs) (GIW-02 through GIW-07, as well as GIW-10). Wellhead gas temperatures in these wells are all in the low to mid 40-50°F range. TMP readings for evaluation of the Heat Extraction System are attached, but not evaluated in this commentary.

For the remaining six wells without a cooling system installed (GIW-01, -08, -09, -11, -12, and -13), with the exception of GIW-01 and -11, gas temperatures were generally consistent over the past week as well as compared to prior weeks. GIW-01 experienced a temperature increase of approximately 20 degrees to a historical operational gas temperature consistent with surrounding TMP temperatures. GIW-11 has been experiencing 20-30 degree fluctuations in gas temperature, which is likely due to its proximity to GIW series wells with cooling loops installed and/or low gas flows.

Attachment D – Neck Area Gas Extraction Well Data

Weekly gas temperature data is being collected for select gas extraction wells (GEWs) located in the neck area of the landfill. These wells include GEW-008, -009, -010, -038, -039, -040, -041R, -043R, -053, -054, -055, -056R, -109, and -110. Over the past week all 14 wells were monitored and all well temperatures were consistent in comparison to prior weeks. Temperature fluctuations experienced are within the historical gas temperature norms for these wells.

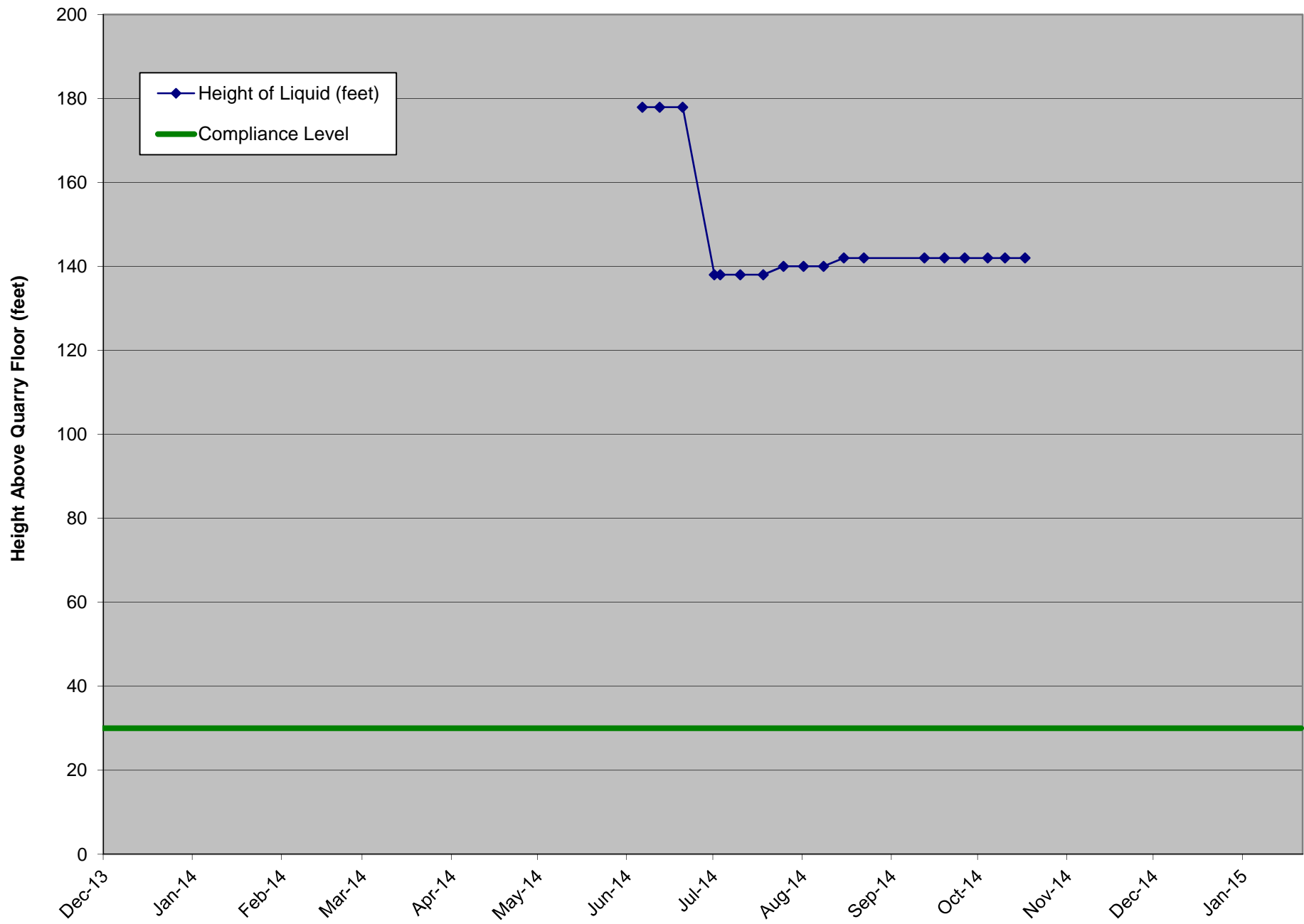
Attachment E – North Quarry Gas Extraction Well Data

Weekly gas temperature data is being collected for select gas extraction wells (GEWs) located in the north quarry of the landfill. These wells include GEW-002, -003, -004, -005, -042R, -045R, -046R, -047R -048 and -049. Over the past week all 10 wells were monitored and all well temperatures were within NSPS operational parameters. Temperature fluctuations are due to low flow and influence of ambient temperature conditions. These wells will be monitored and reported on in a similar fashion to that of the neck area GEWs per the letter January 16, 2015 transmitted agreement letter to MDNR. This reporting will continue until proposed TMP-24 and -26 are installed and routine monitoring is established and reported in future Weekly Data Submittals.

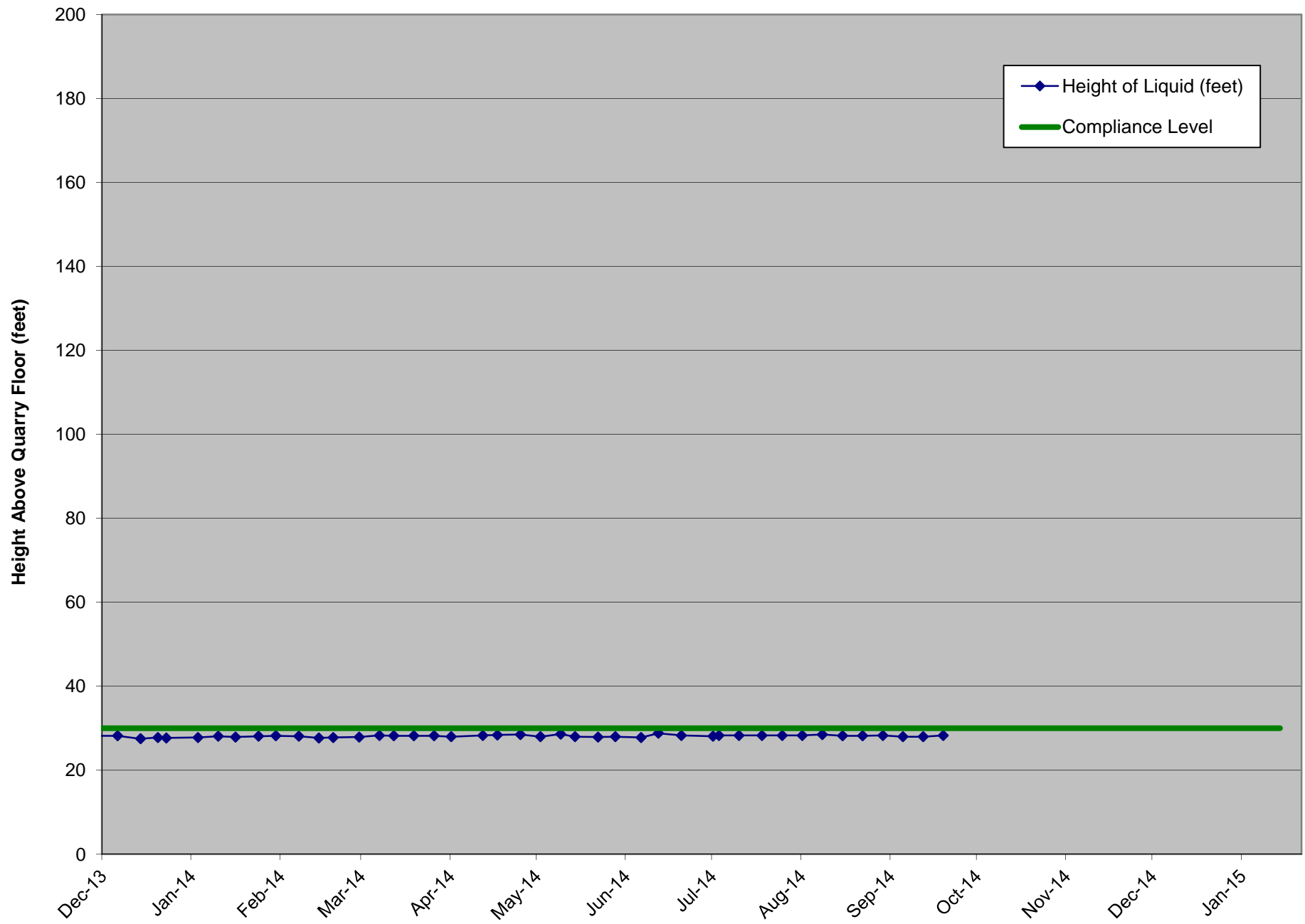
ATTACHMENT A

LEACHATE LEVELS IN LEACHATE COLLECTION SUMPS

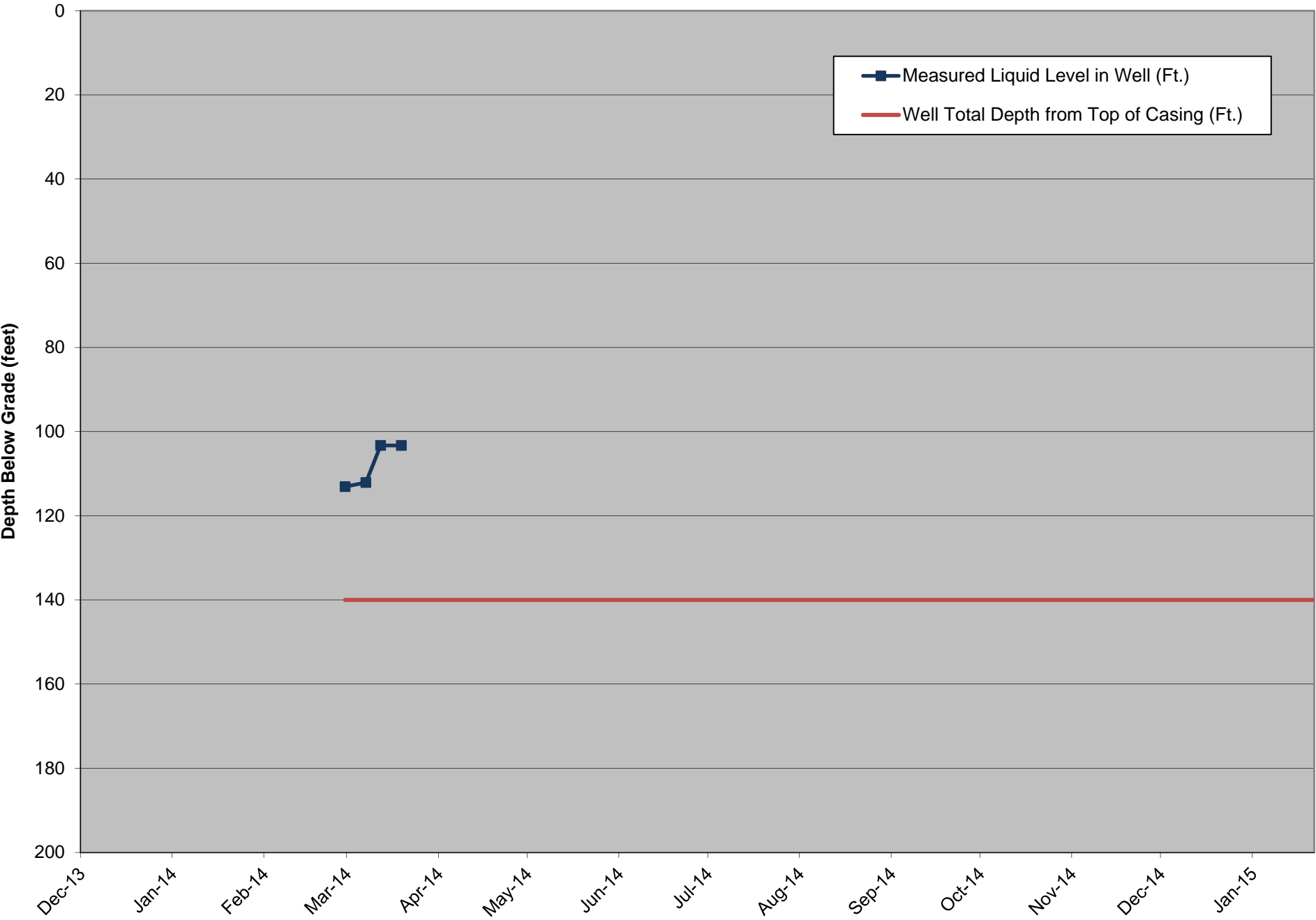
LCS-1D Liquid Level Above Quarry Floor



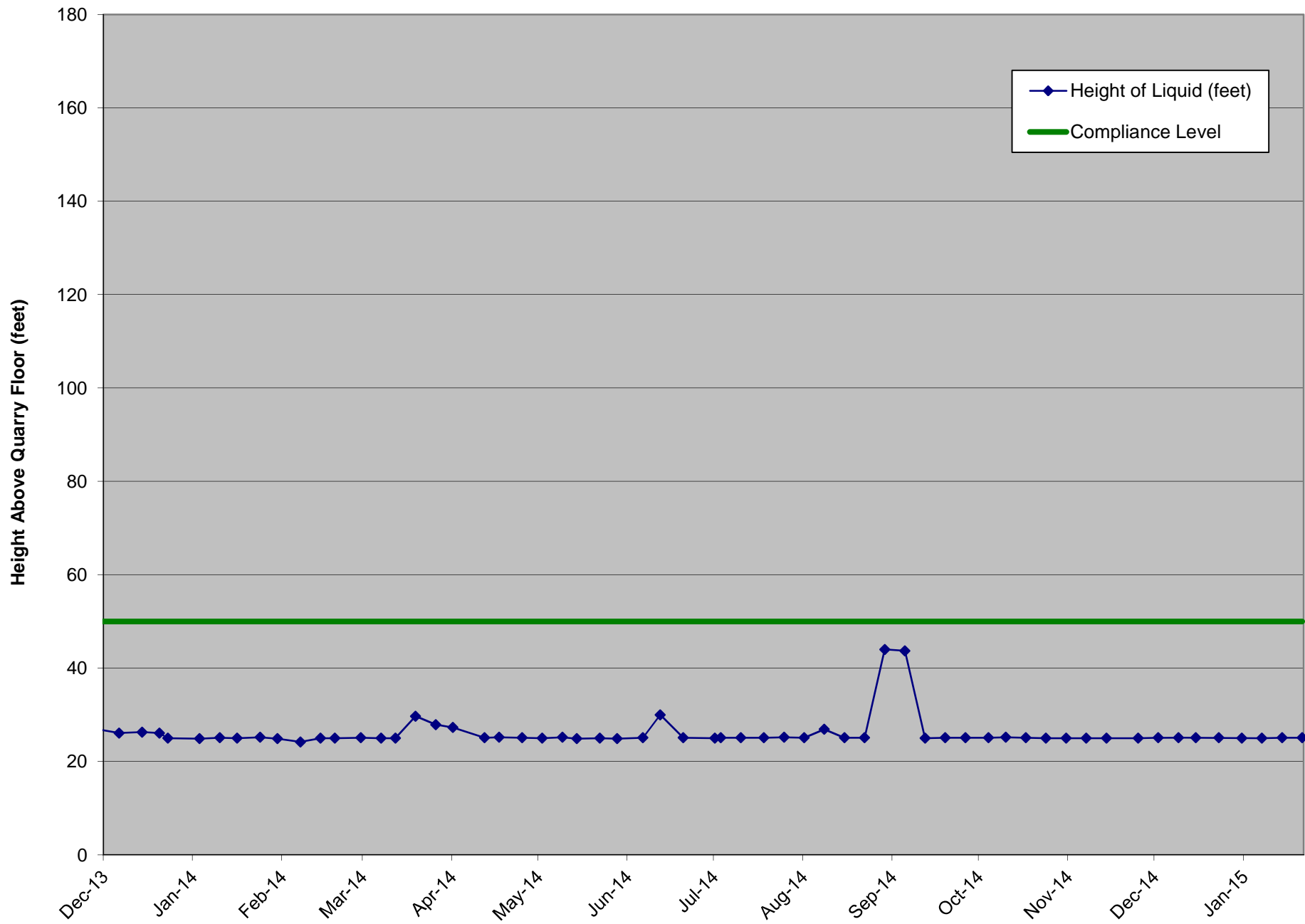
LCS-2D Liquid Level Above Quarry Floor



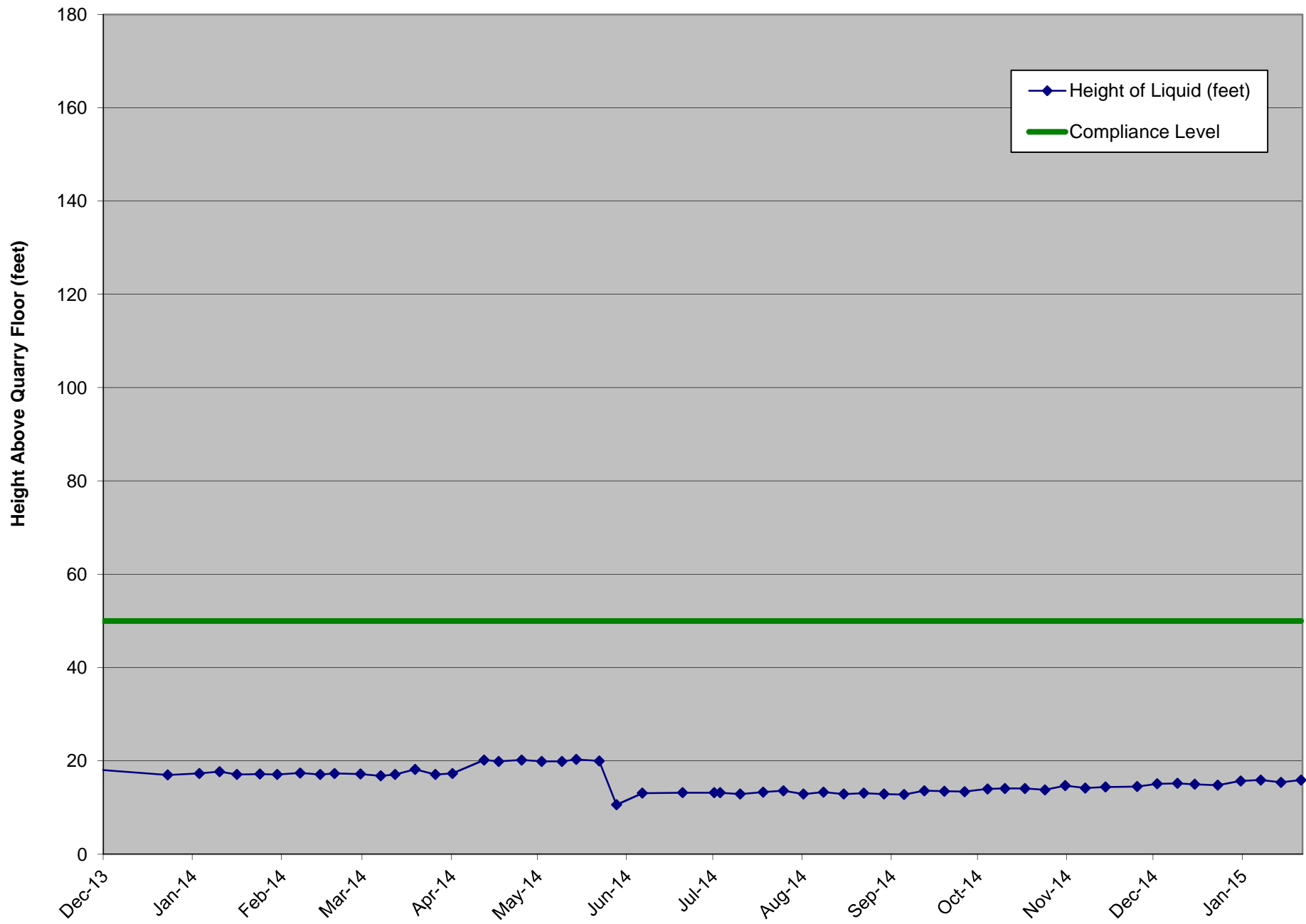
LCS-3D Liquid Level Below Ground Surface



LCS-5A Liquid Level Above Quarry Floor



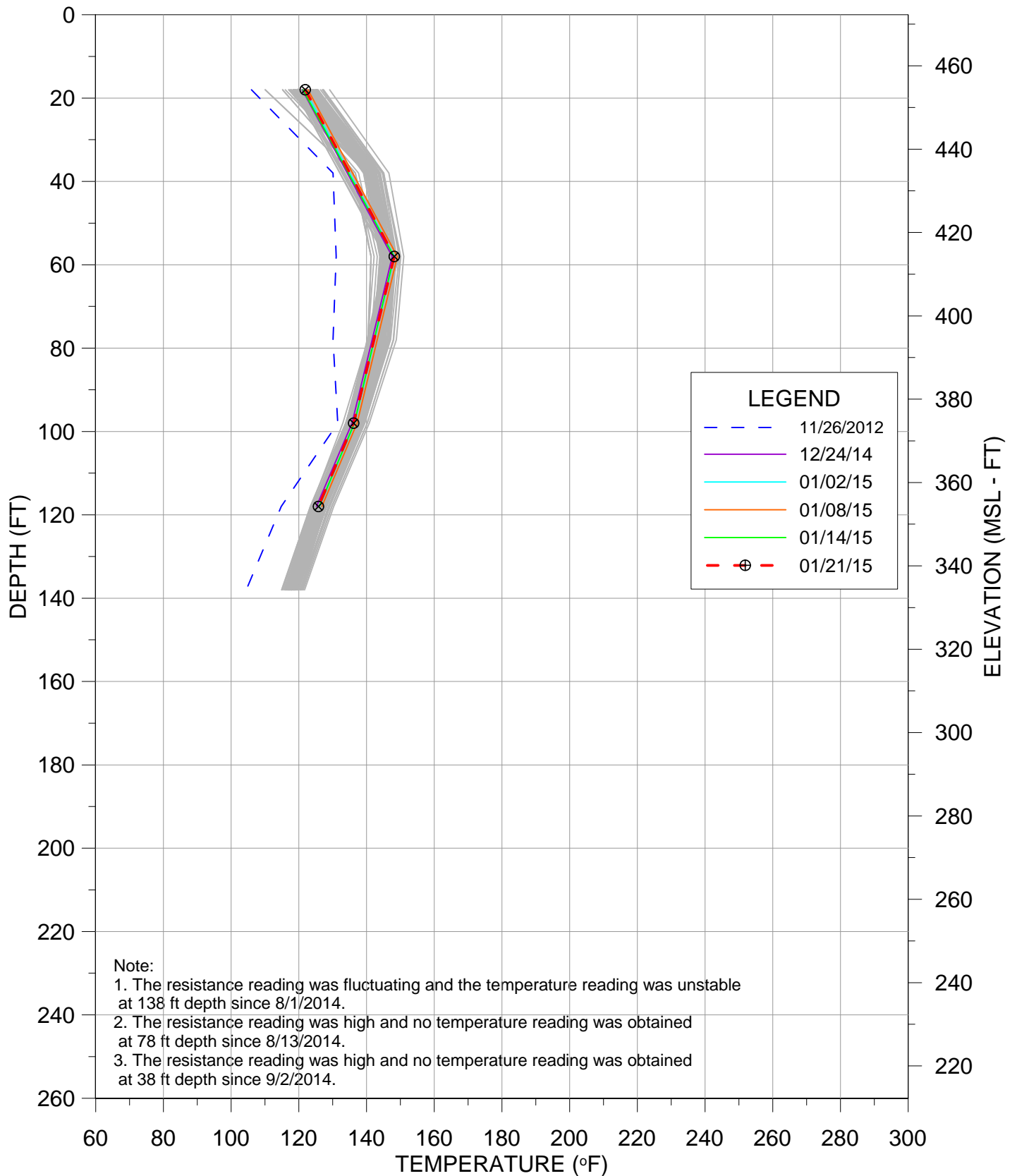
LCS-6B Liquid Level Above Quarry Floor



ATTACHMENT B

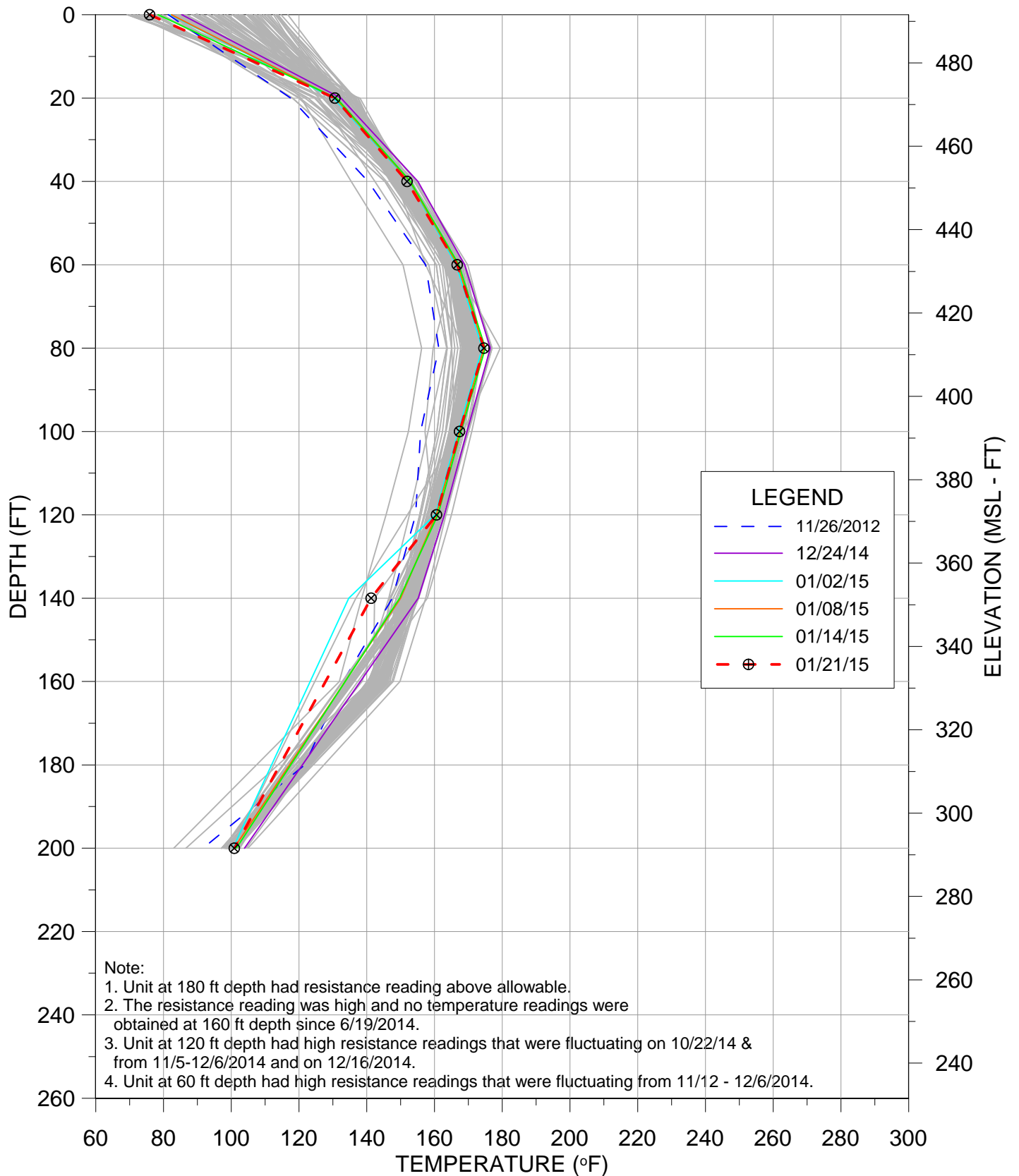
TEMPERATURE MONITORING PROBE ANALYTICAL CHARTS

TMP-1

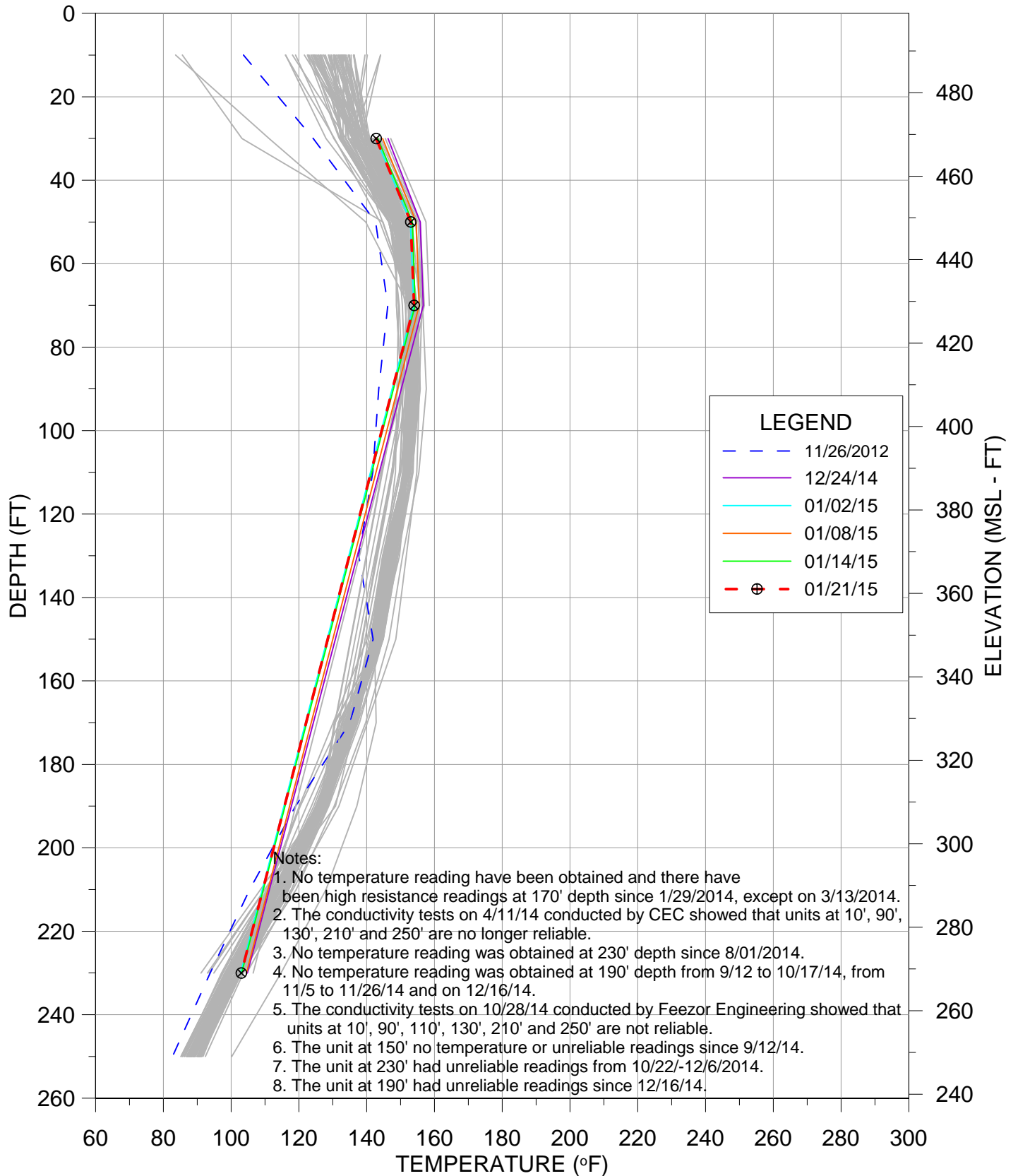


TEMPERATURE VS DEPTH
BRIDGETON LANDFILL

TMP-2

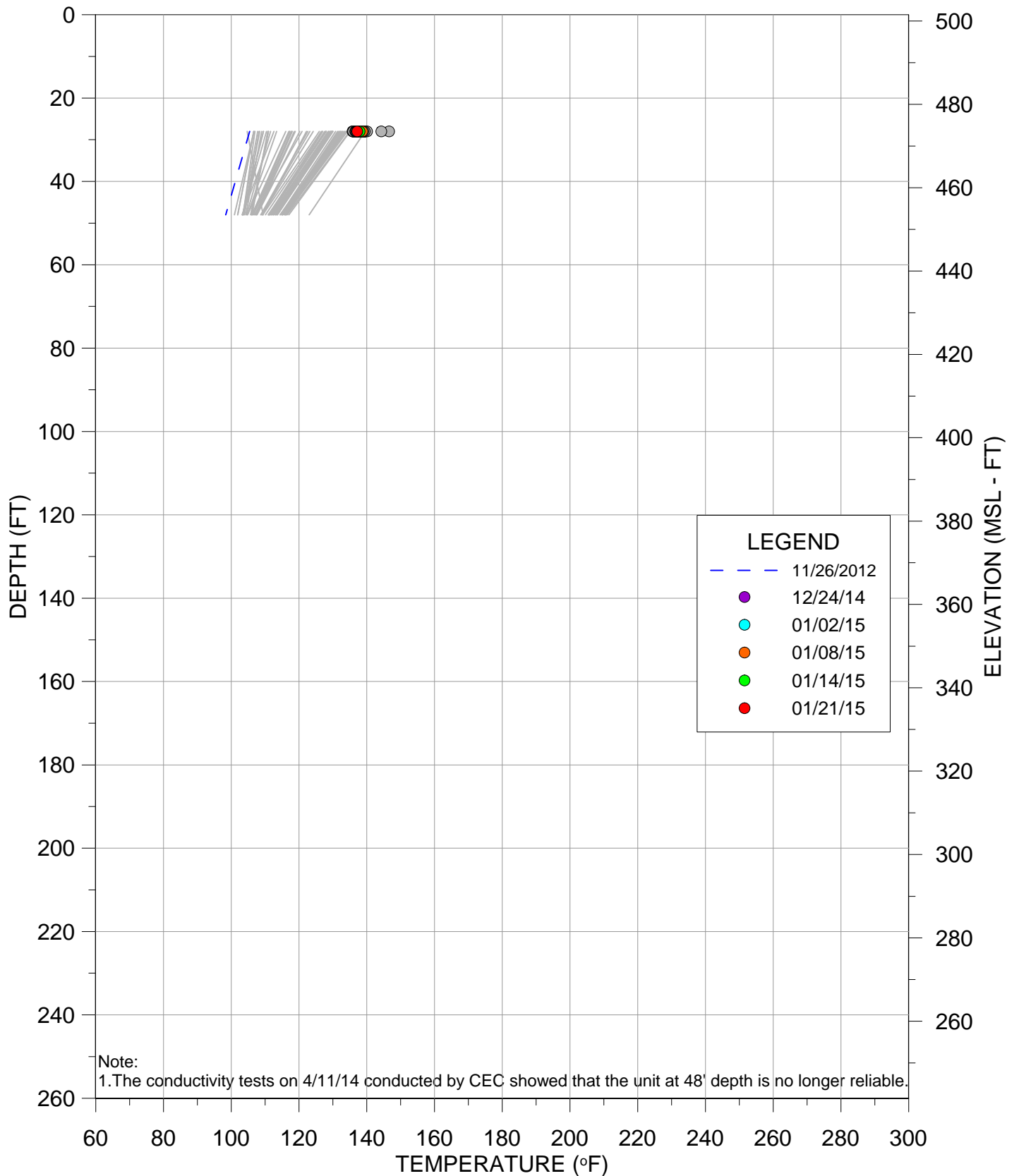


TMP-3



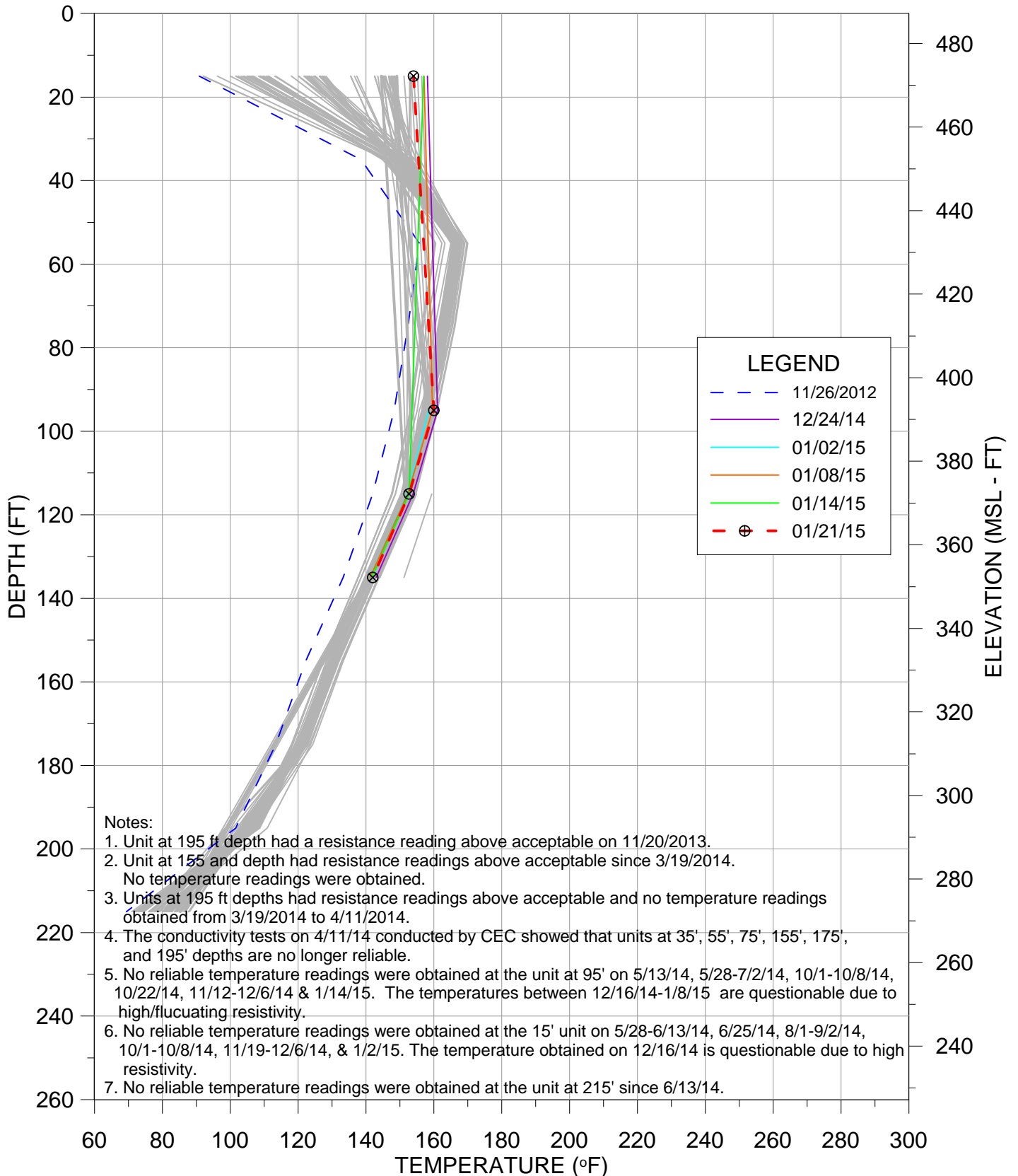
TEMPERATURE VS DEPTH
BRIDGETON LANDFILL

TMP-4



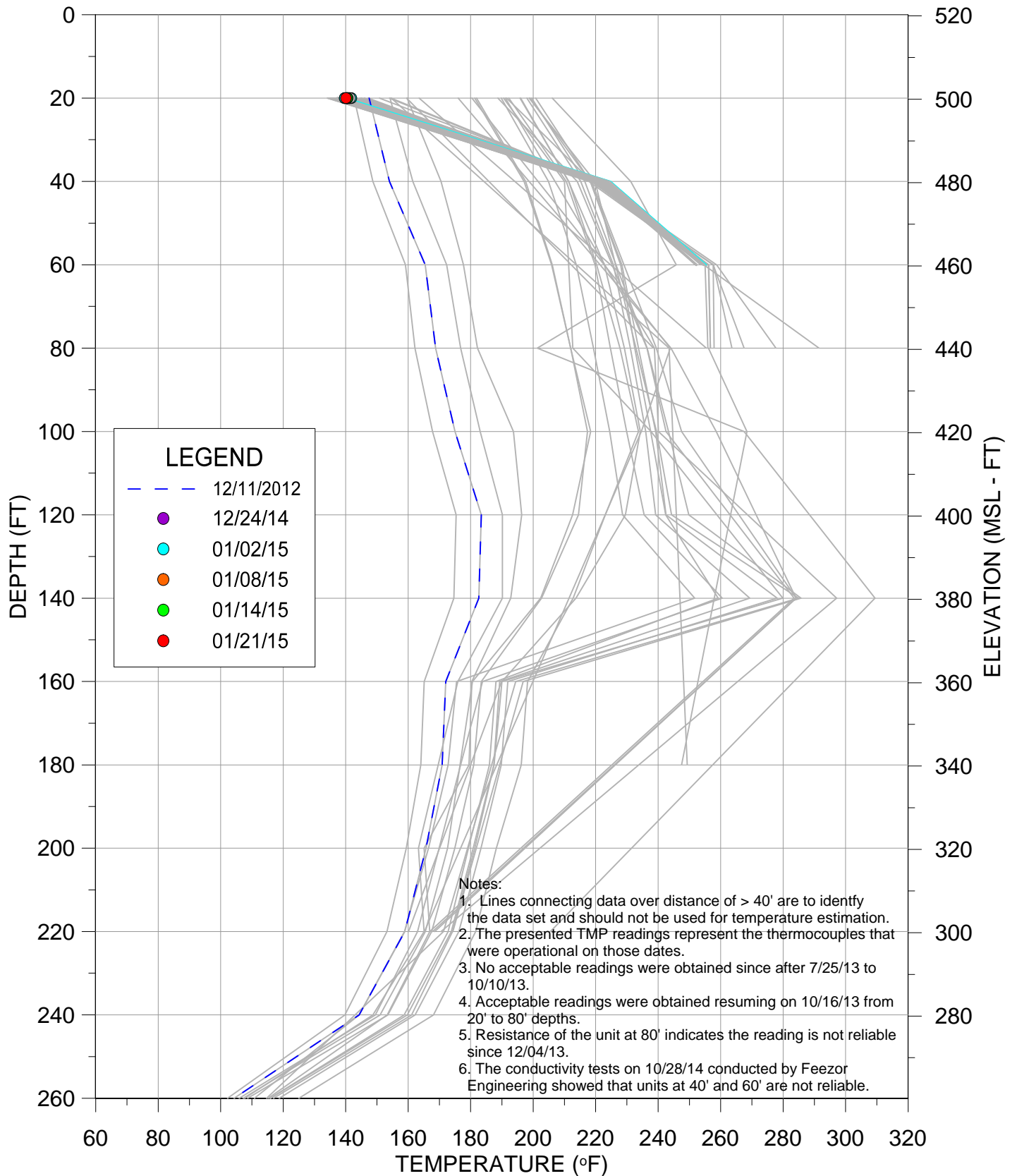
TEMPERATURE VS DEPTH
BRIDGETON LANDFILL

TMP-6



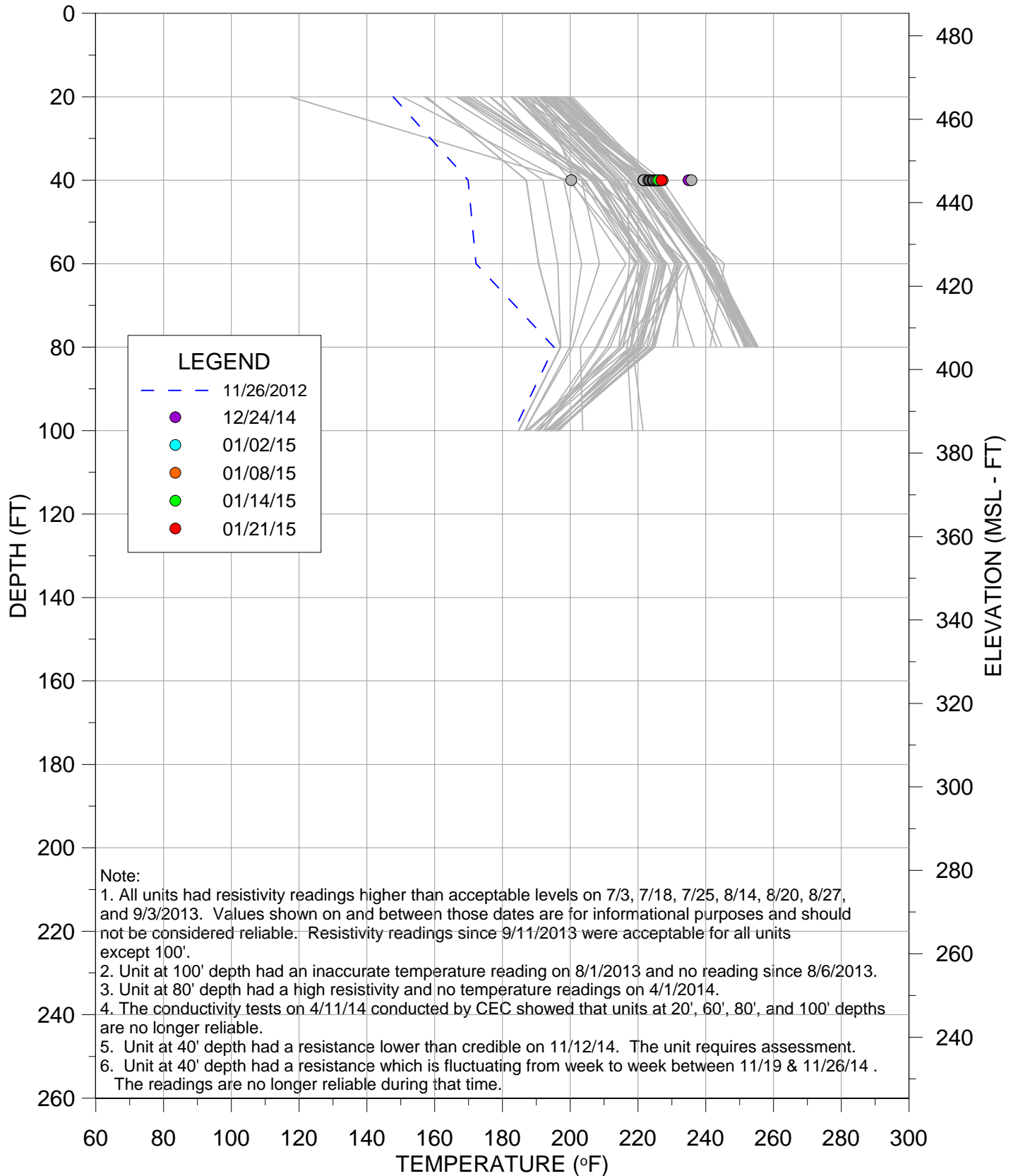
TEMPERATURE VS DEPTH
BRIDGETON LANDFILL

TMP-8

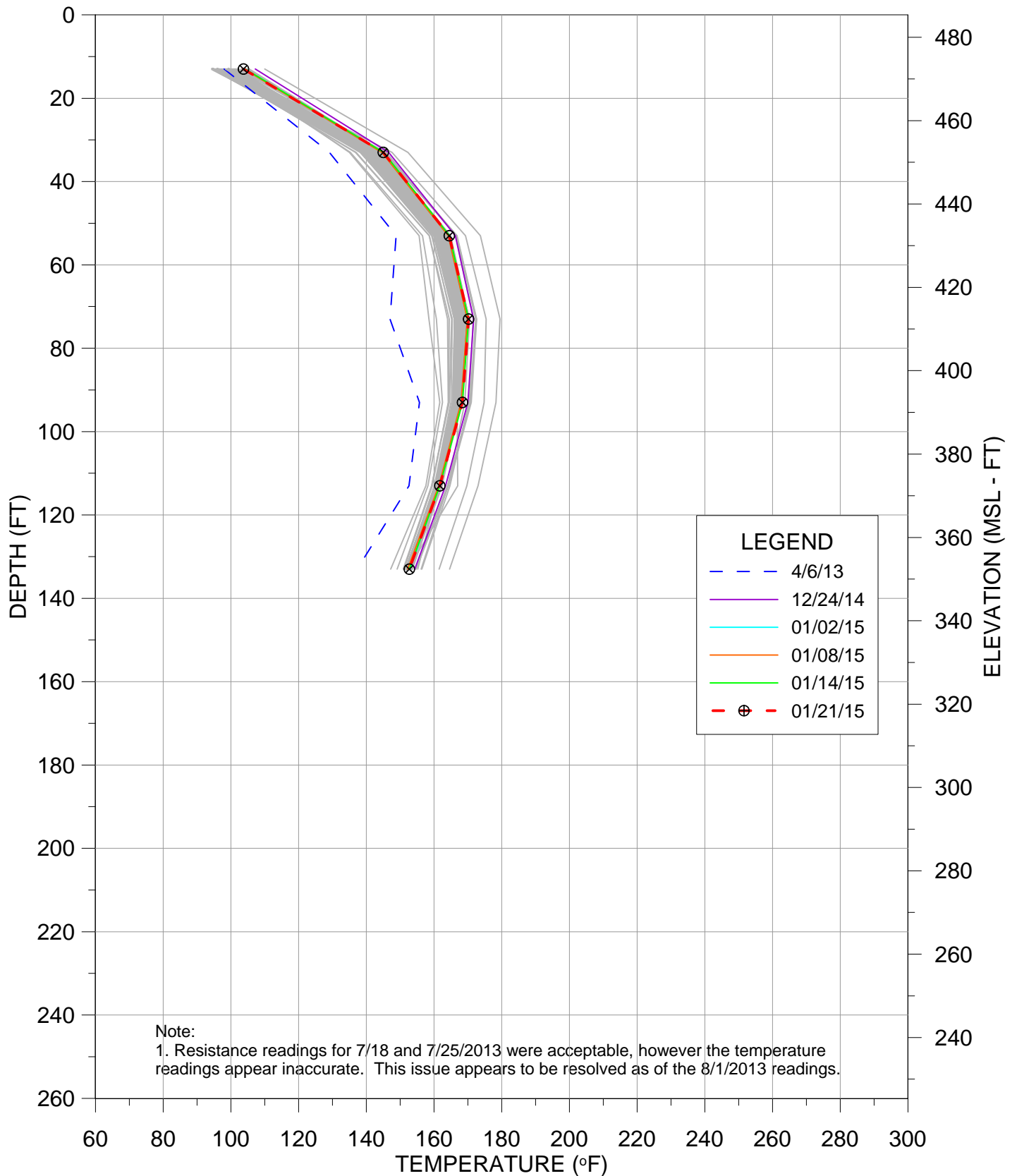


TEMPERATURE VS DEPTH
BRIDGETON LANDFILL

TMP-9

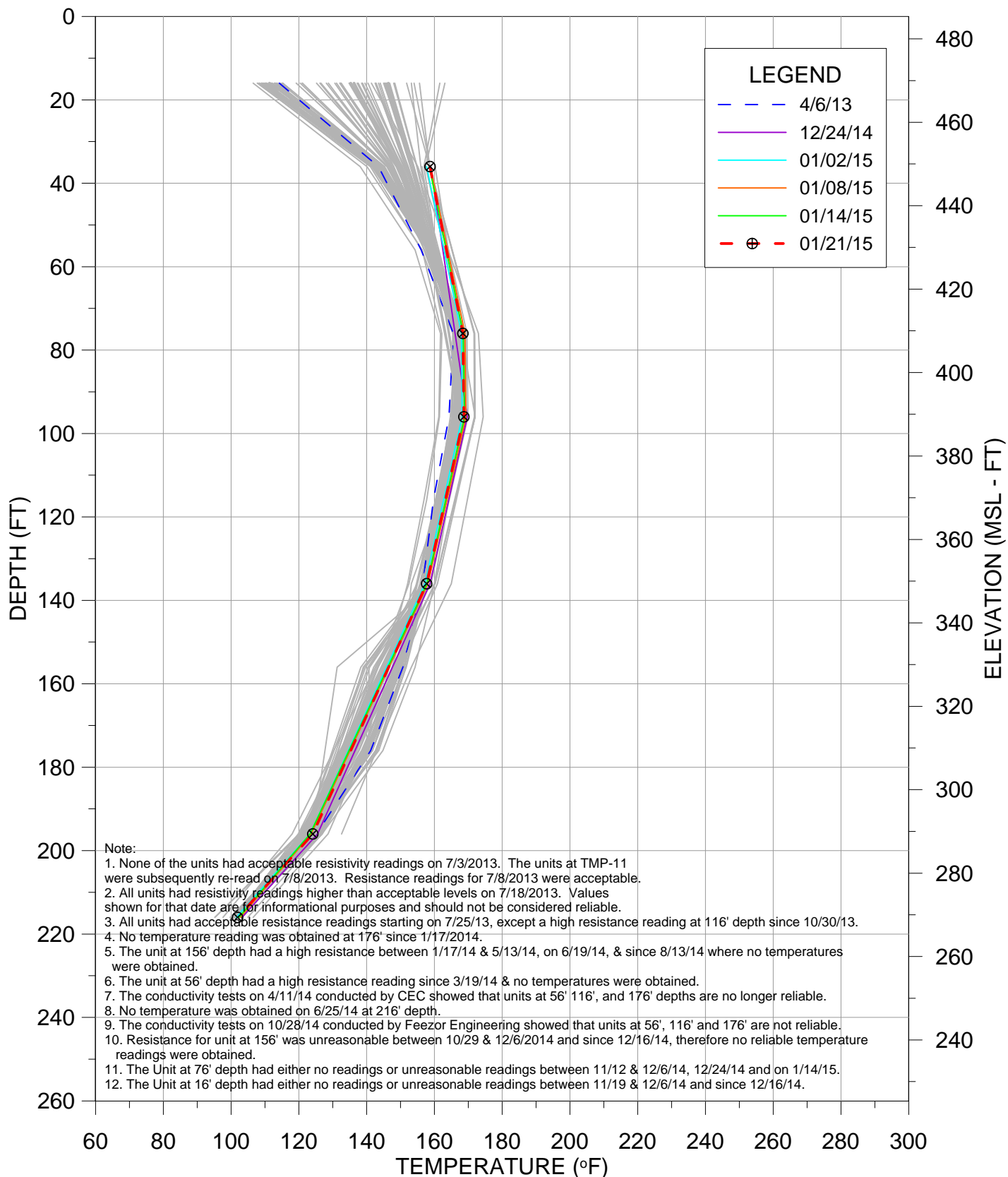


TMP-10



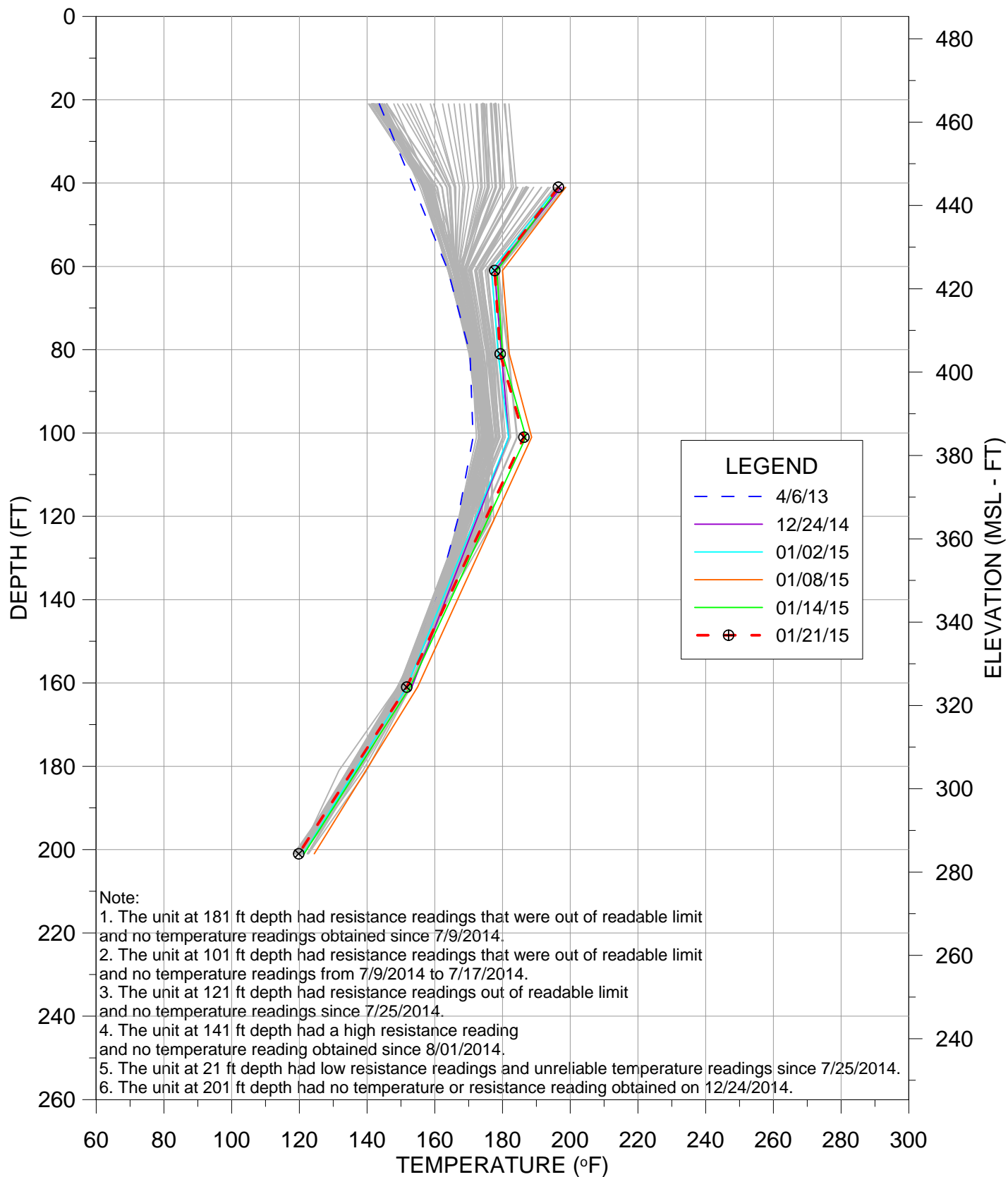
TEMPERATURE VS DEPTH
BRIDGETON LANDFILL

TMP-11

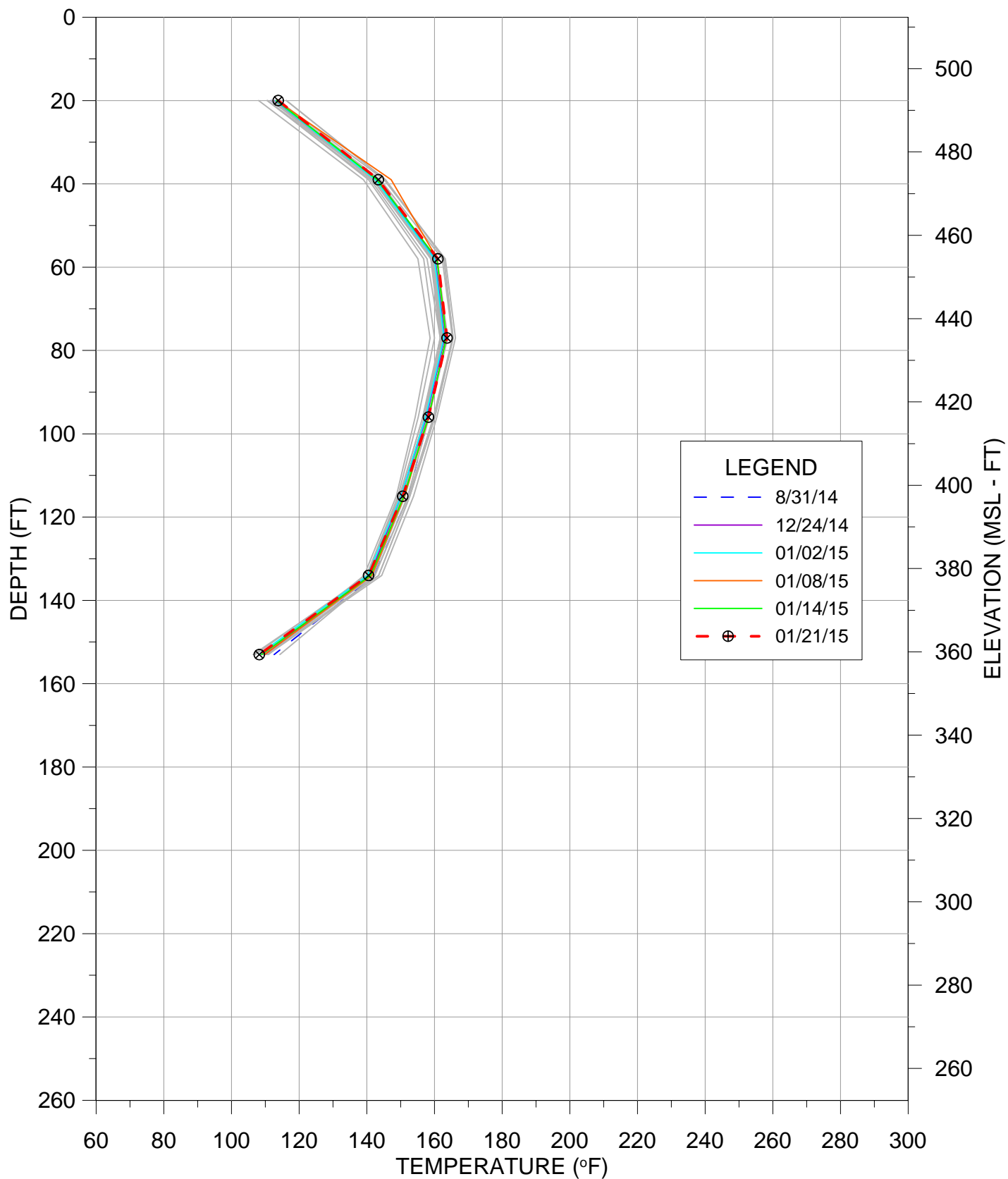


TEMPERATURE VS DEPTH
BRIDGETON LANDFILL

TMP-14

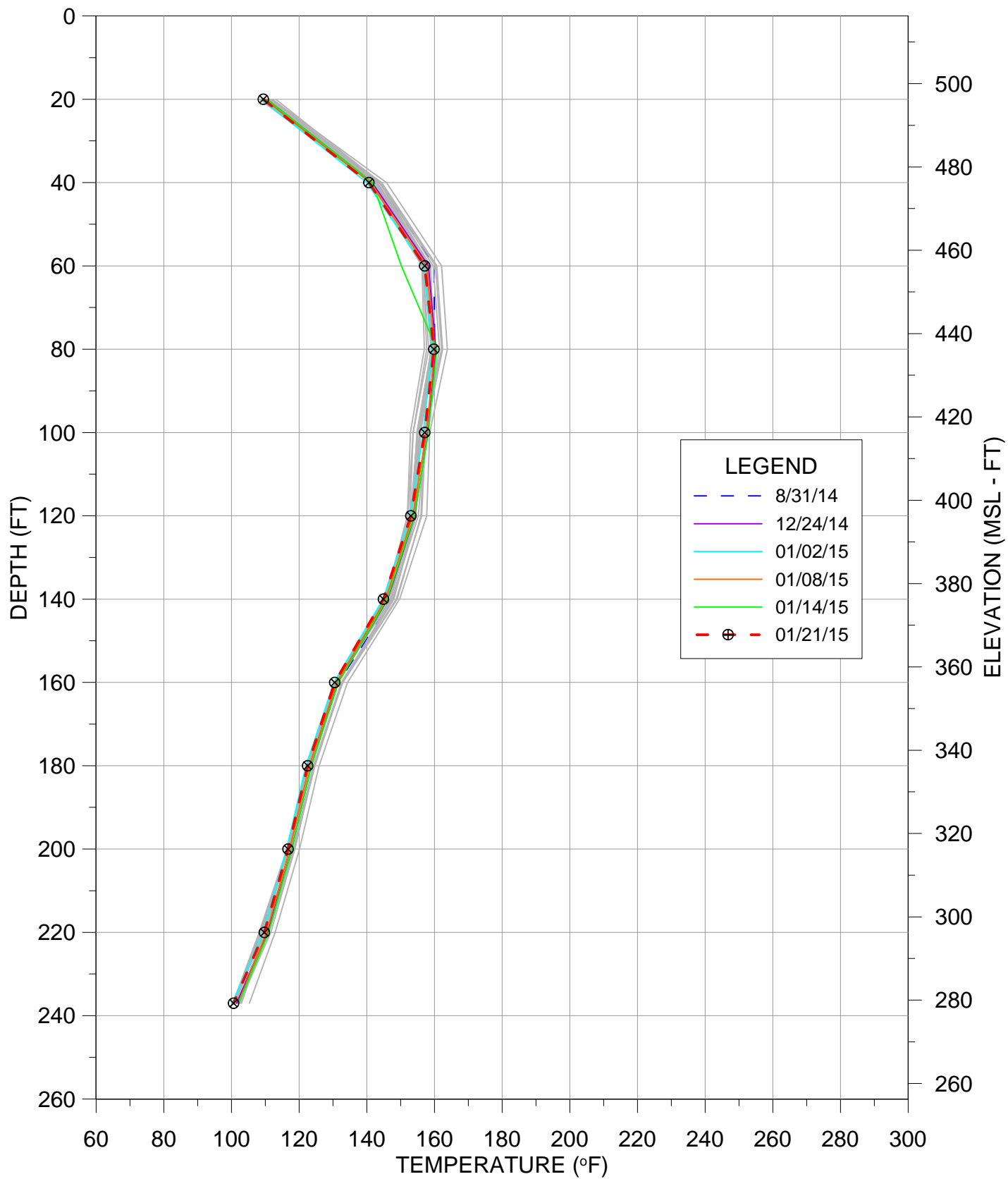


TMP-16



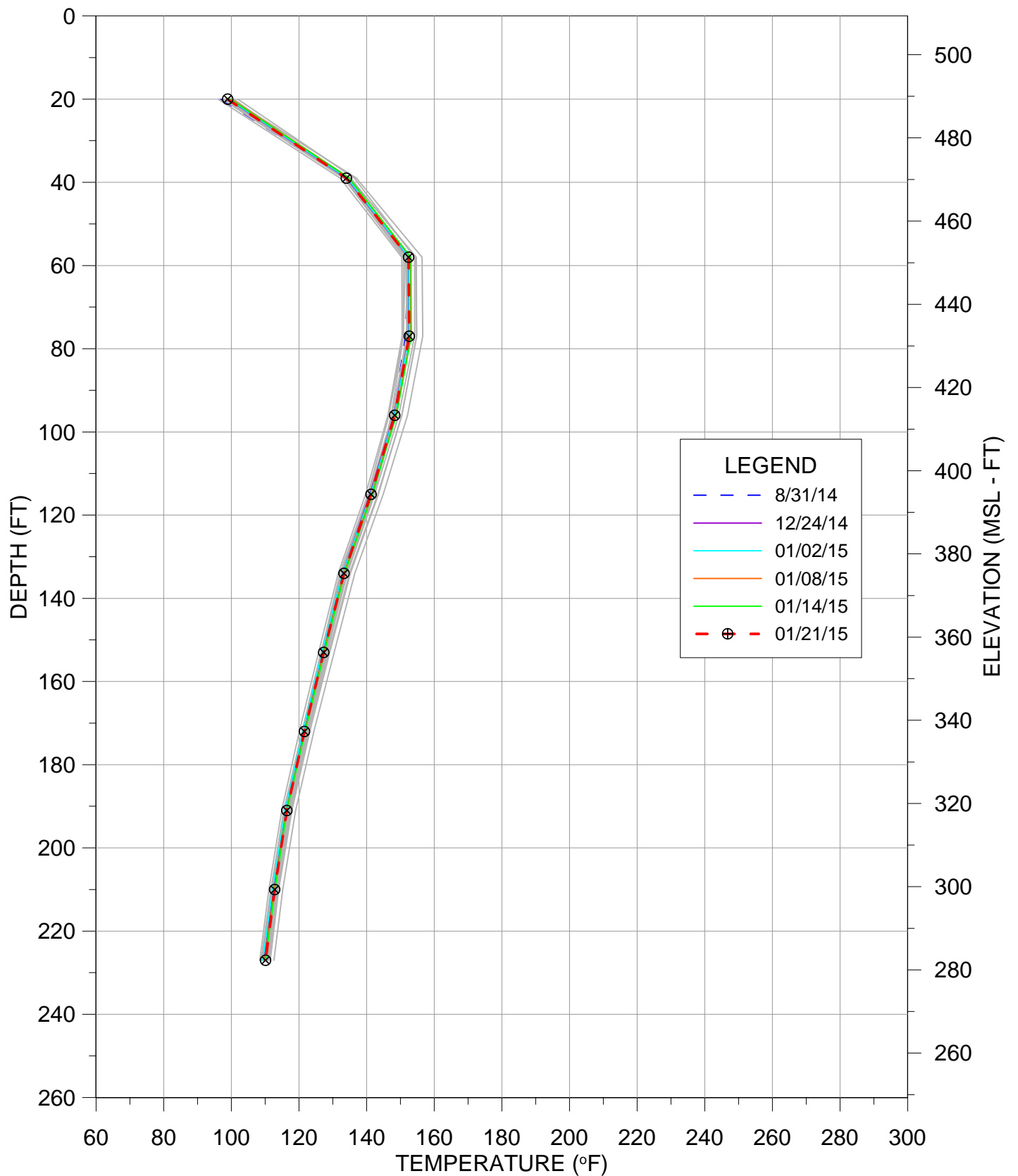
TEMPERATURE VS DEPTH
BRIDGETON LANDFILL

TMP-17



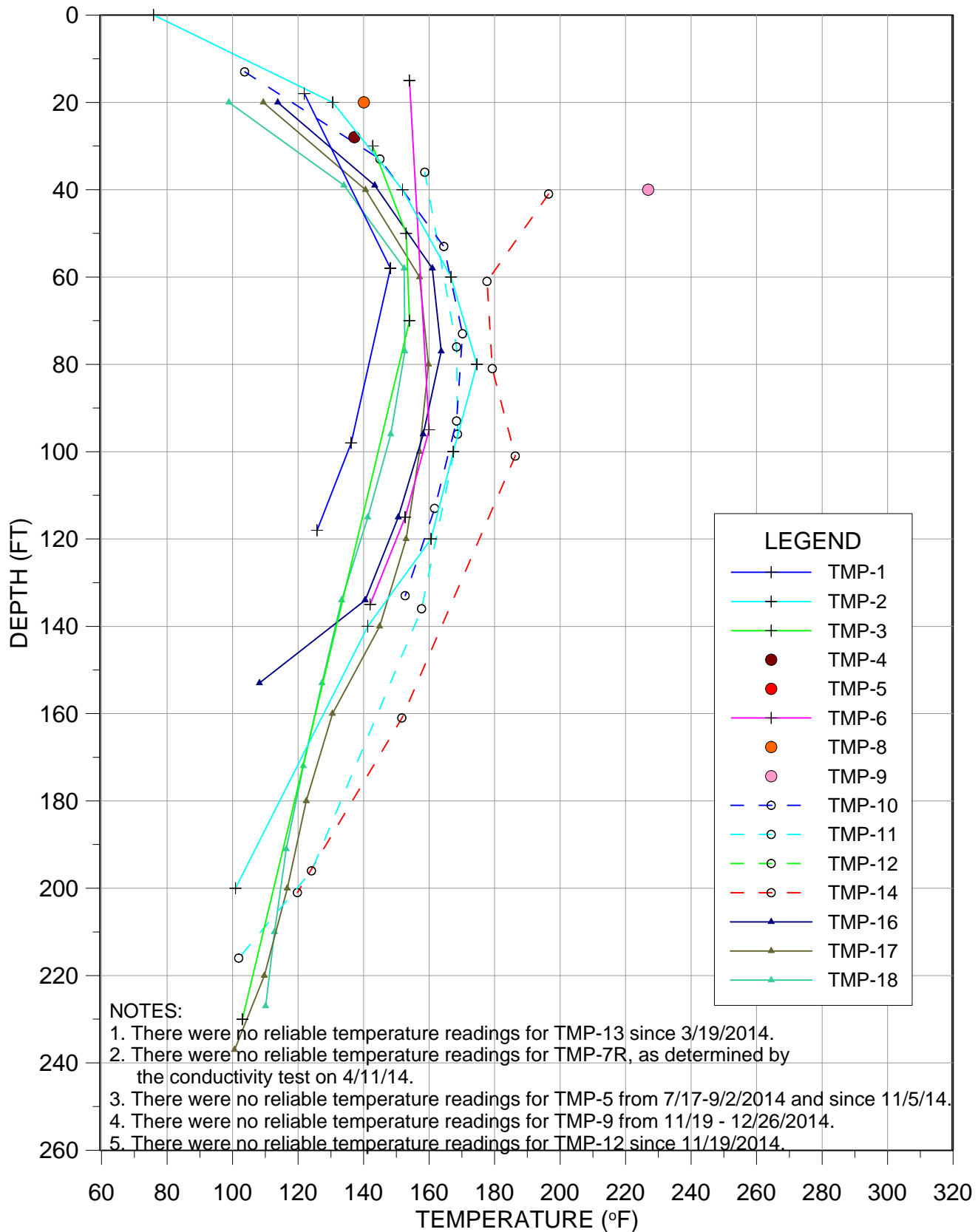
TEMPERATURE VS DEPTH
BRIDGETON LANDFILL

TMP-18

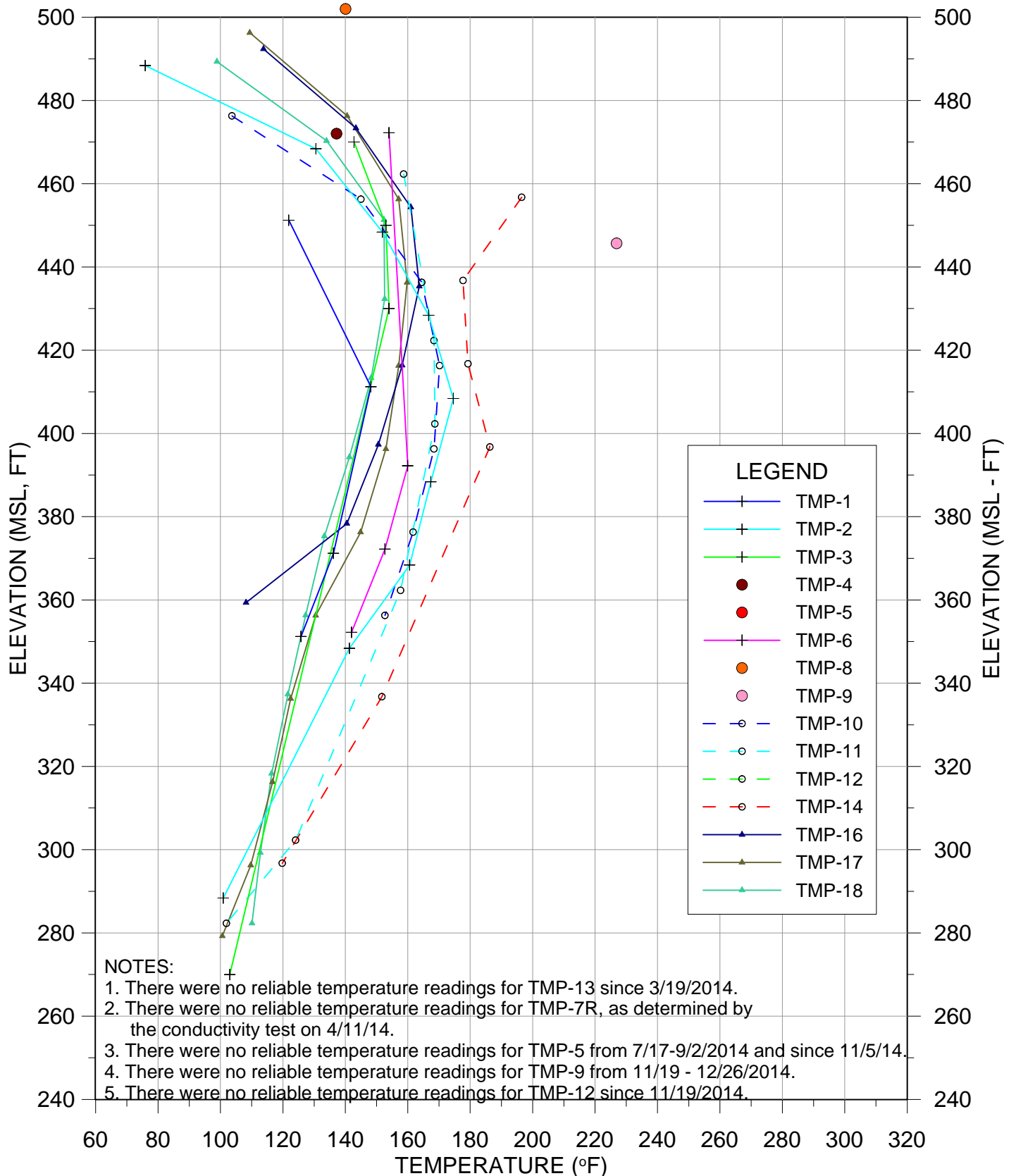


TEMPERATURE VS DEPTH
BRIDGETON LANDFILL

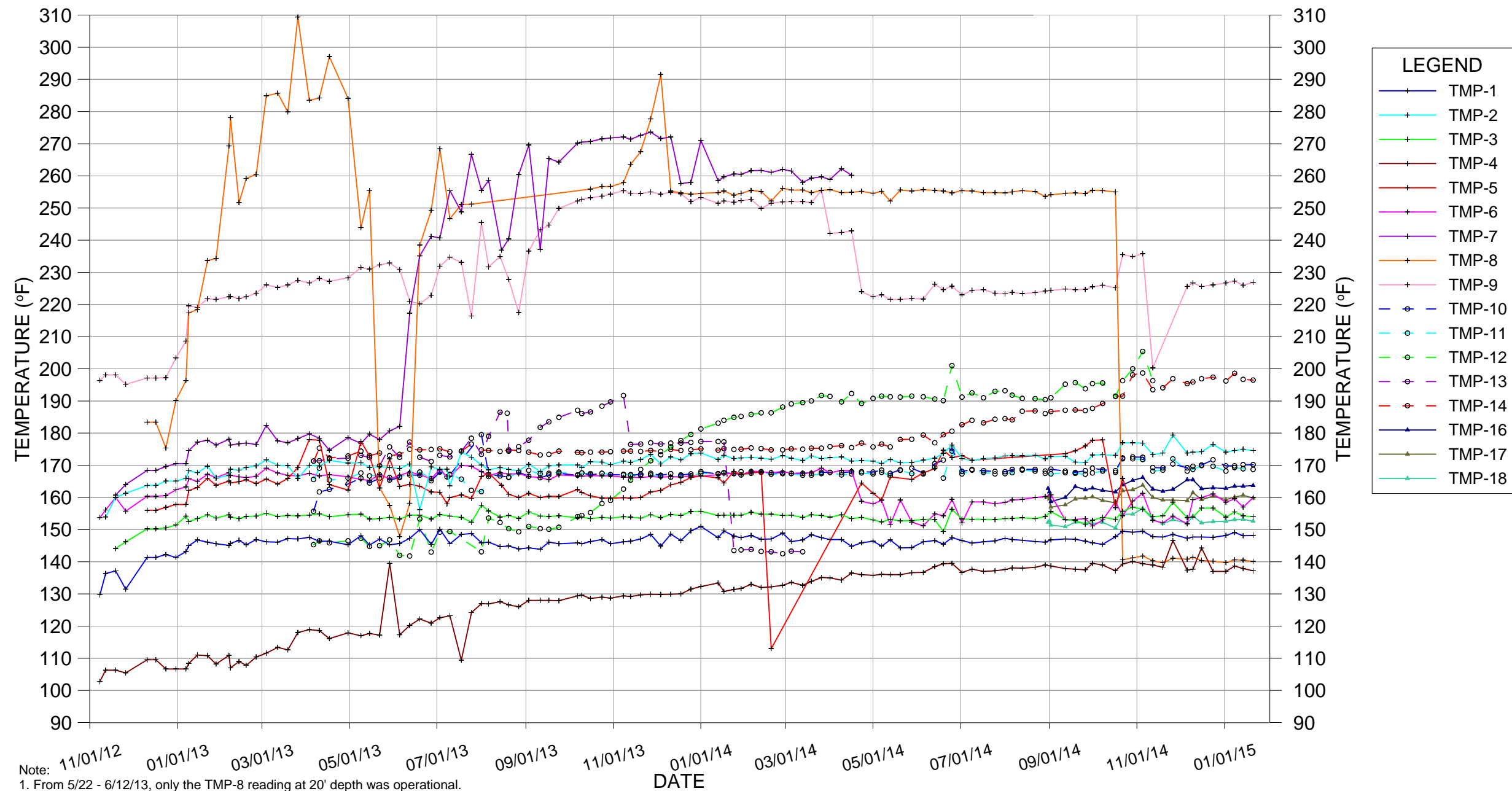
1/21/2015 -DEPTH



1/21/2015 - ELEVATION



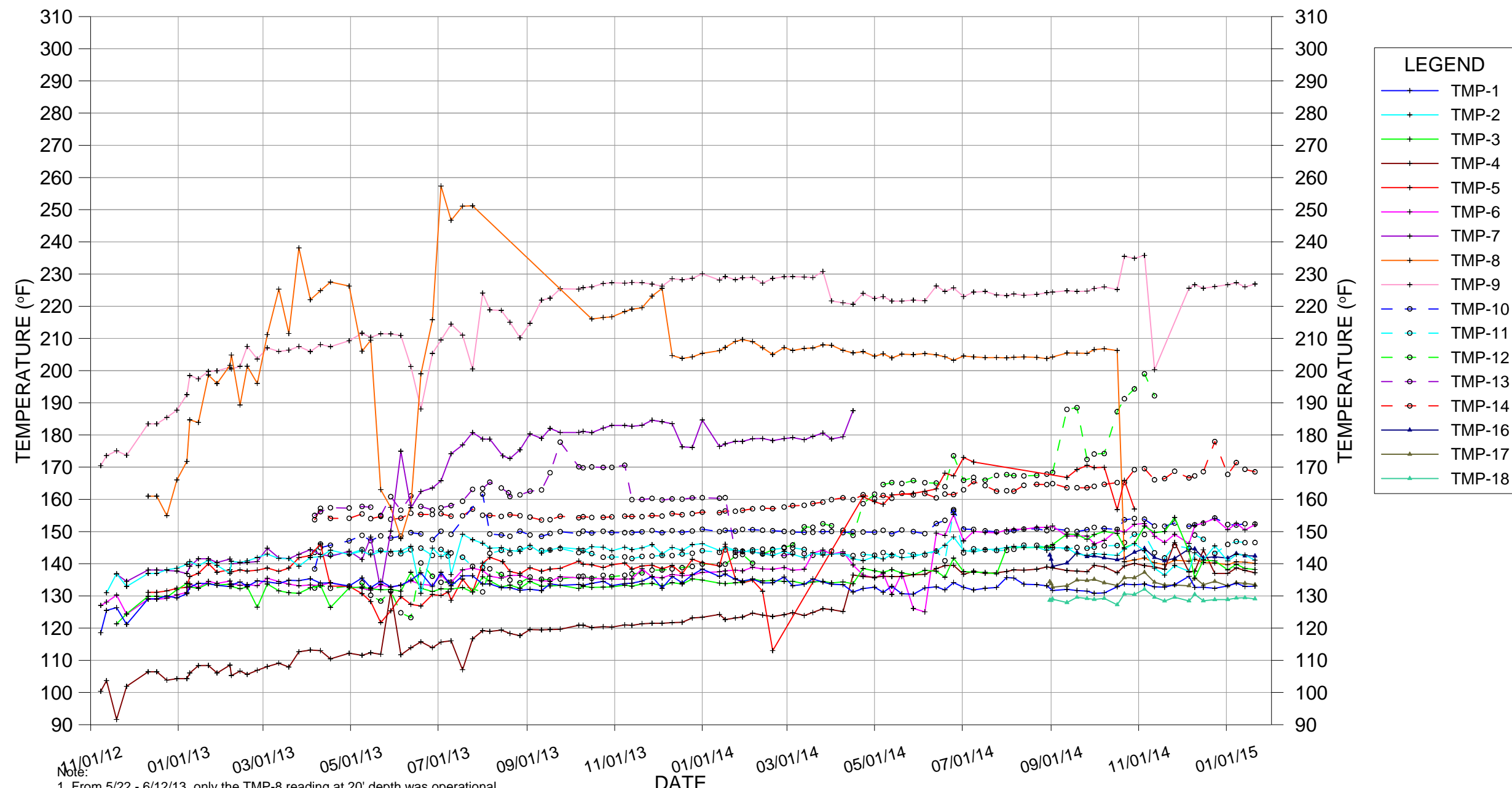
MAXIMUM TEMPERATURES



- Note:
- From 5/22 - 6/12/13, only the TMP-8 reading at 20' depth was operational.
No valid readings were obtained for TMP-8 from 8/1 to 10/10/2013. Valid readings from 20' to 40' resumed on 10/16/2013.
 - A new OMEGA dial was installed at TMP-7R on 6/12/2013 enabling more valid readings.
 - No valid readings were obtained for TMP-10 and TMP-12 on 7/18/2013 or 7/25/2013.
 - End terminals were replaced just prior to the 8/6/2013 readings with type T Omega connectors (part # SMPW-CC-T-M) on all TMPs except for TMP-8.

TEMPERATURE VS TIME
BRIDGETON LANDFILL

AVERAGE TEMPERATURES



Note:

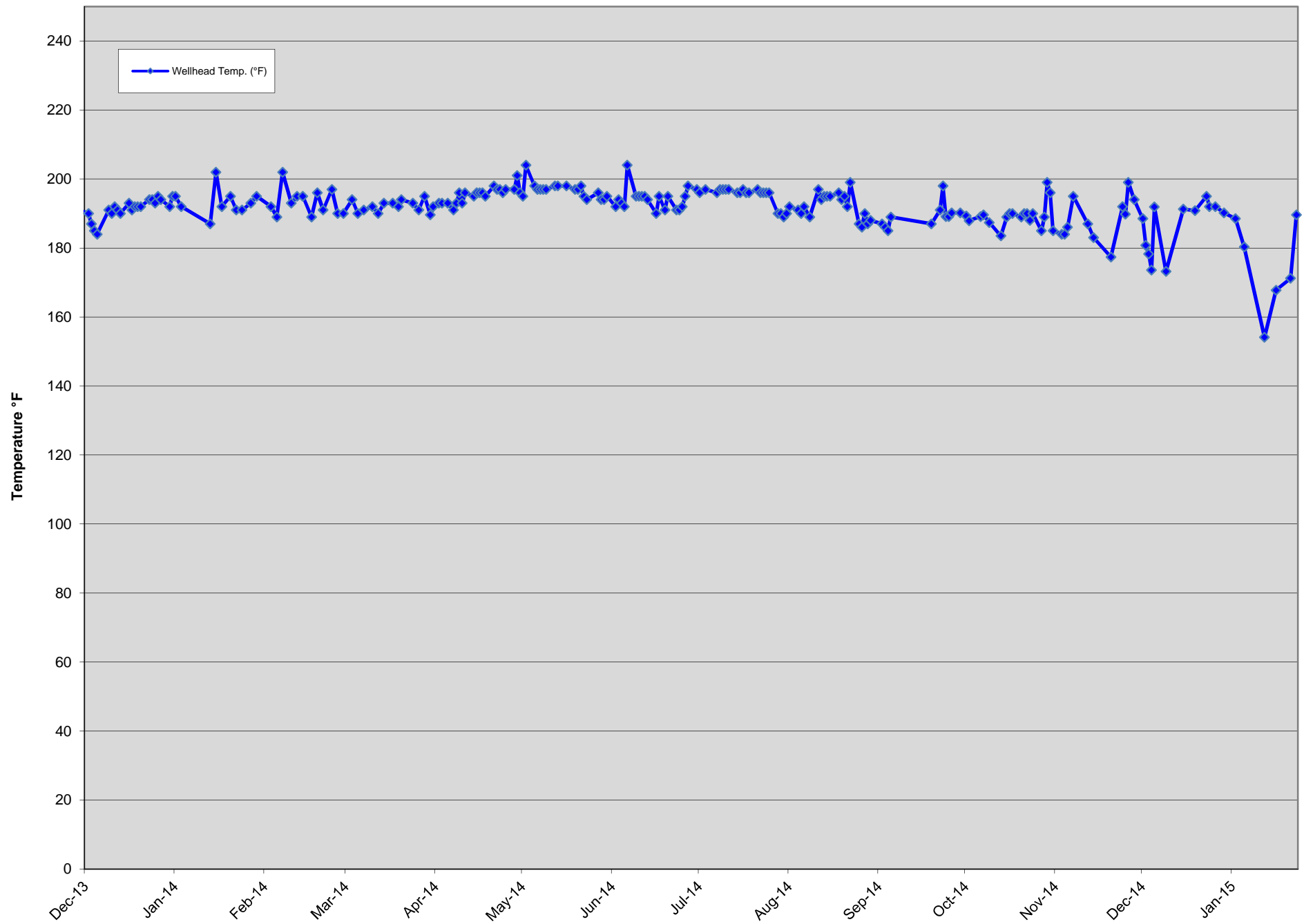
1. From 5/22 - 6/12/13, only the TMP-8 reading at 20' depth was operational.
No valid readings were obtained for TMP-8 from 8/1 to 10/10/2013. Valid readings from 20' to 40' resumed on 10/16/2013.
2. A new OMEGA dial was installed at TMP-7R on 6/12/2013 enabling more valid readings.
3. No valid readings were obtained for TMP-10 and TMP-12 on 7/18/2013 or 7/25/2013.
4. End terminals were replaced just prior to the 8/6/2013 readings with type T Omega connectors (part # SMPW-CC-T-M) on all TMPs except for TMP-8.

TEMPERATURE VS TIME
BRIDGETON LANDFILL

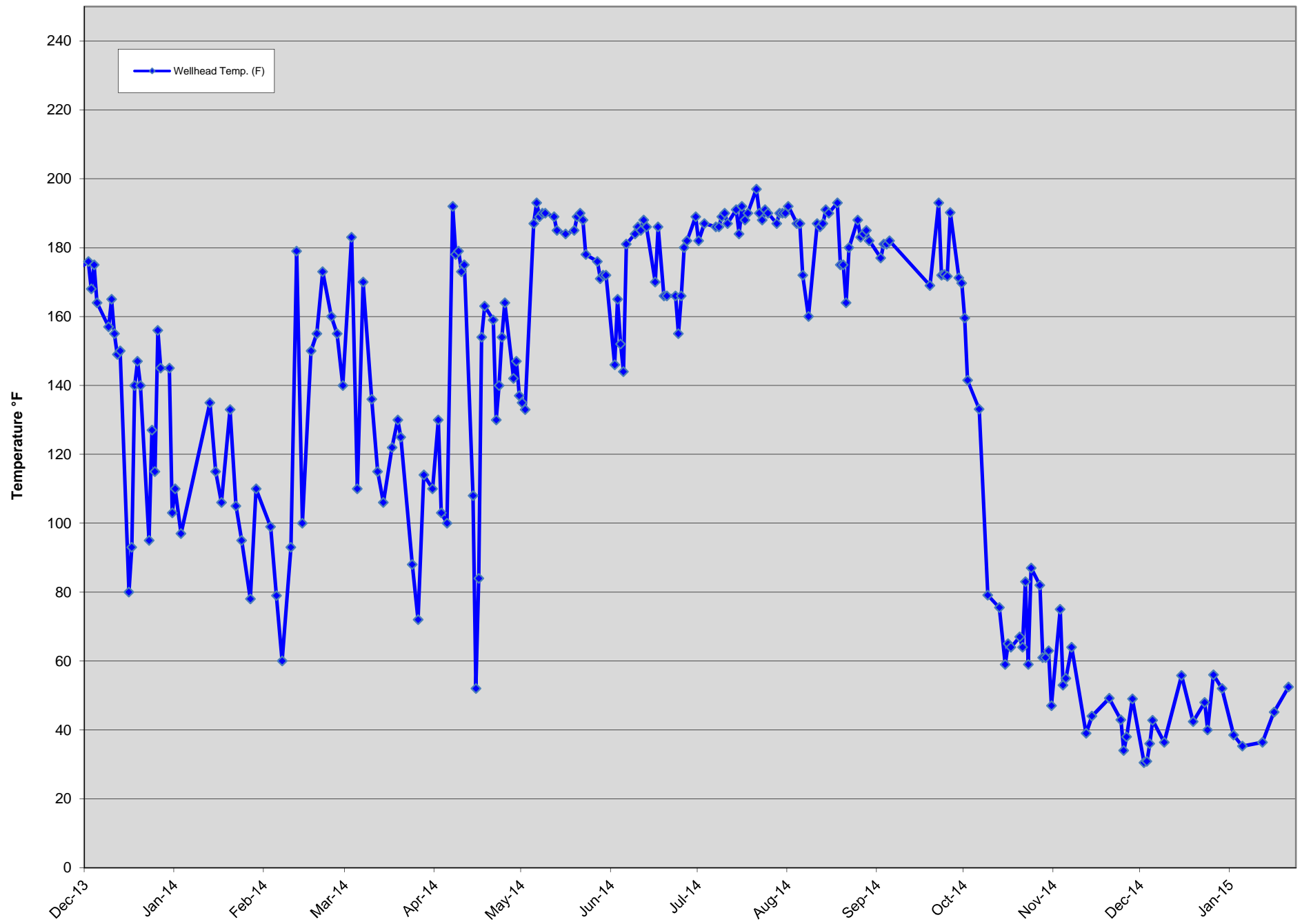
ATTACHMENT C

GAS INTERCEPTOR WELLHEAD TEMPERATURE GRAPHS

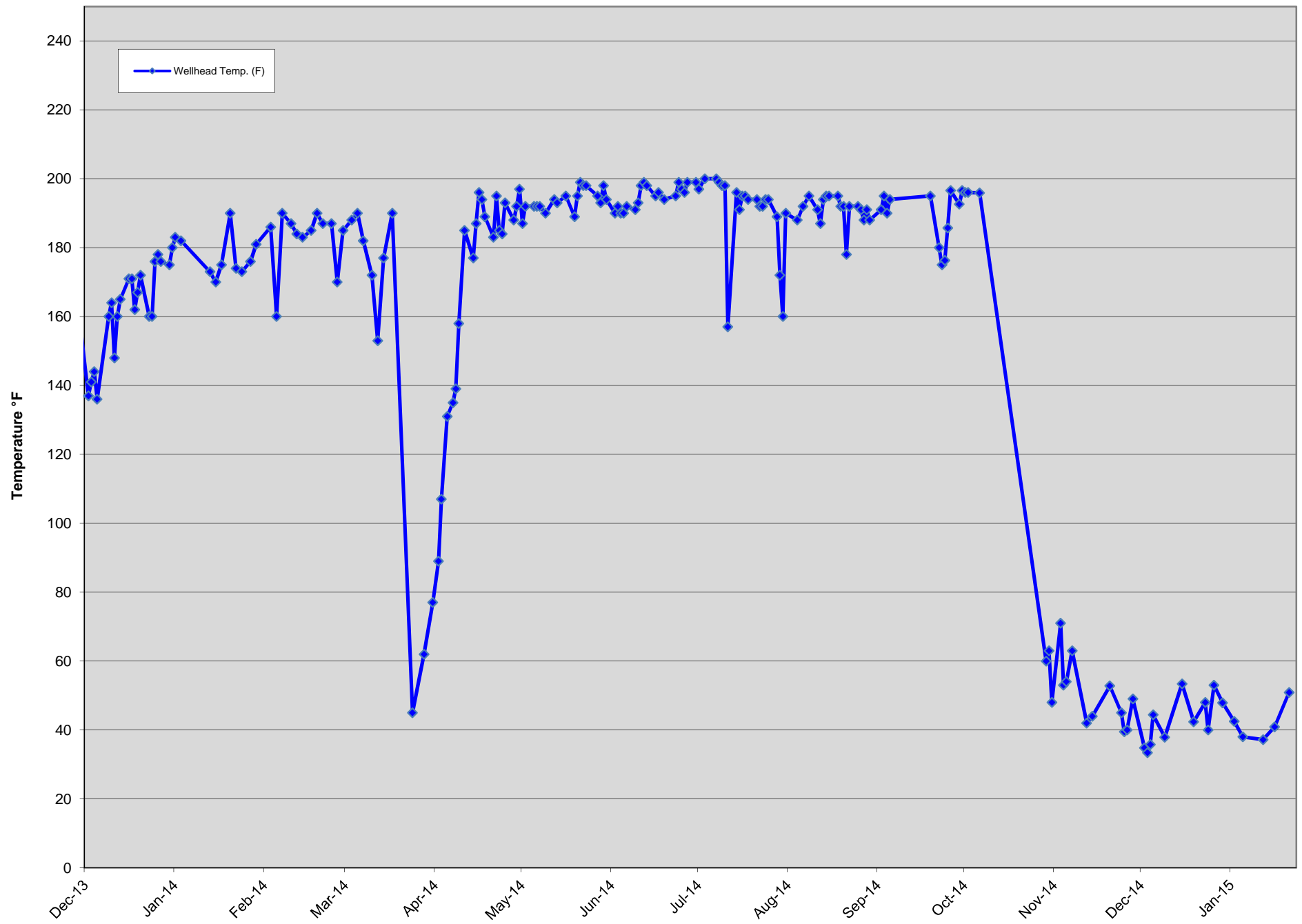
GIW-1 Wellhead Temperatures



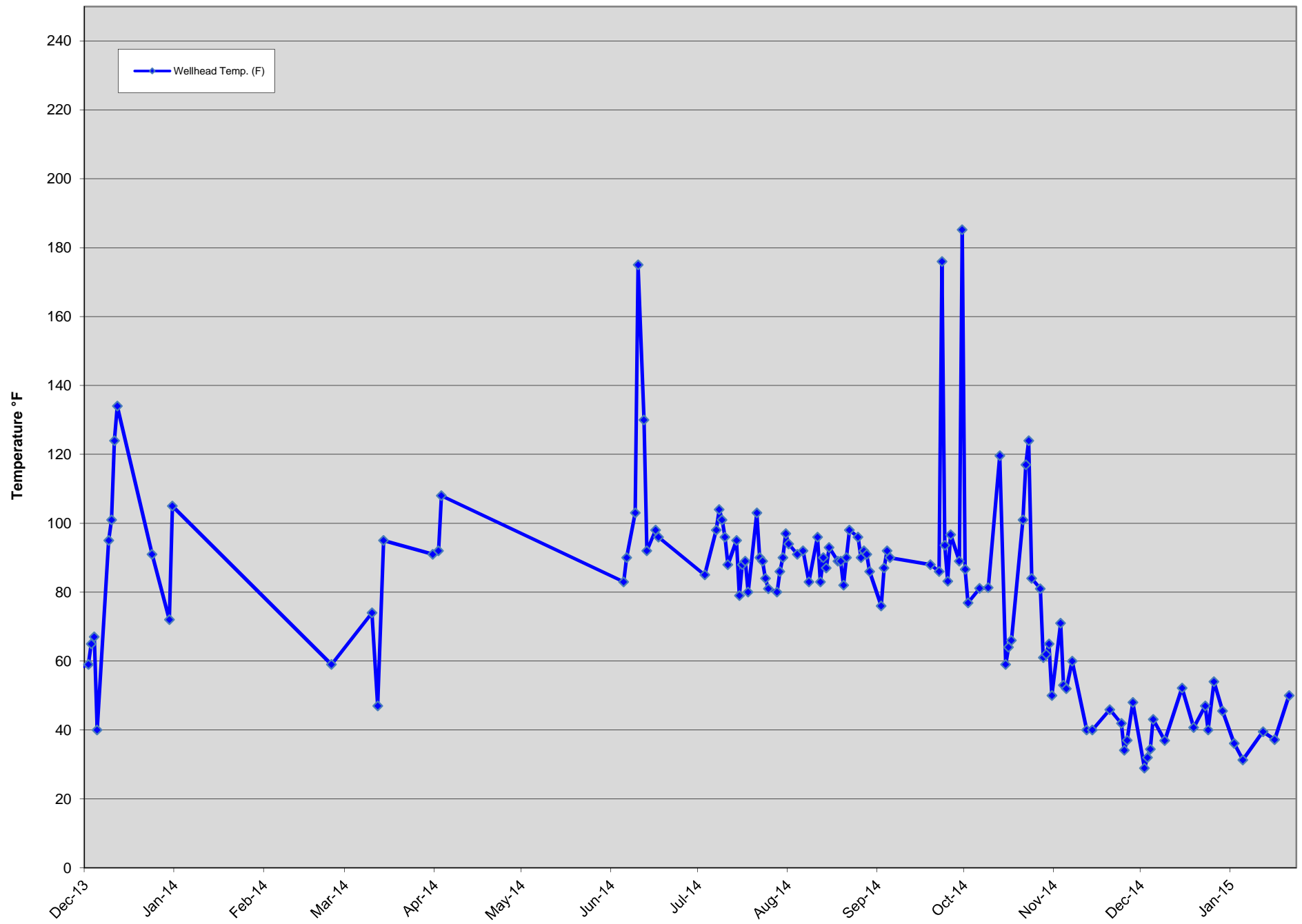
GIW-2 Wellhead Temperatures



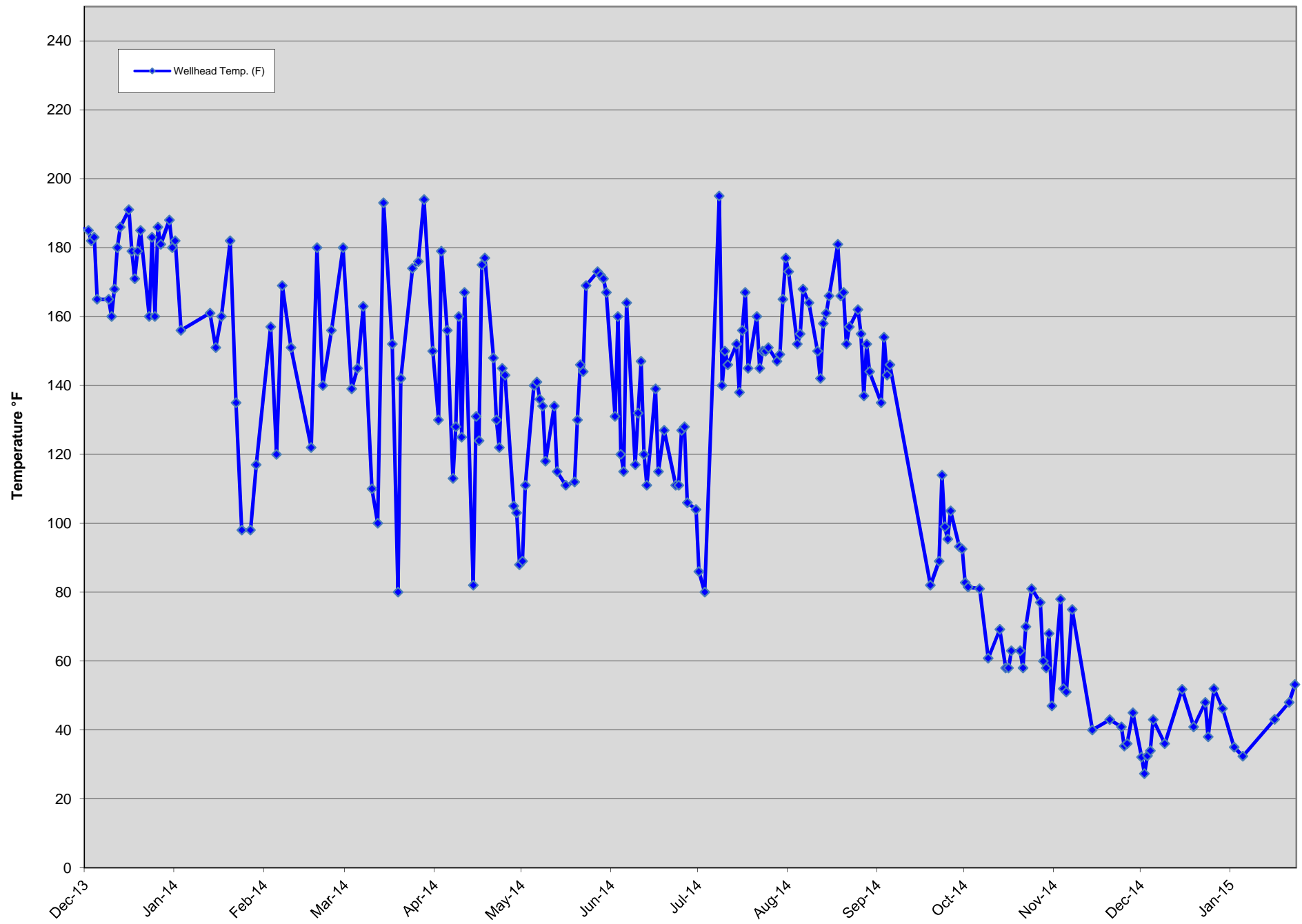
GIW-3 Wellhead Temperatures



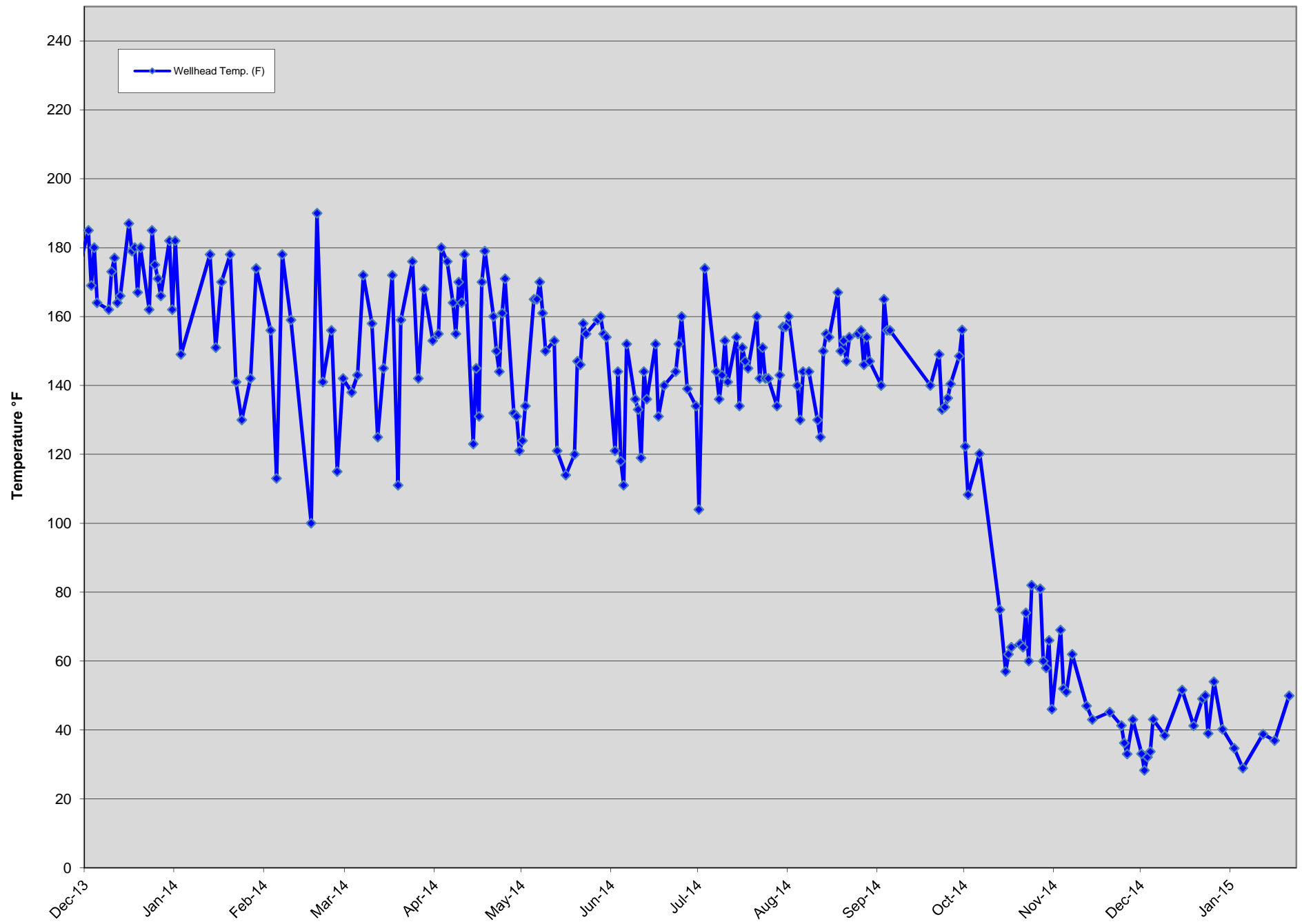
GIW-4 Wellhead Temperatures



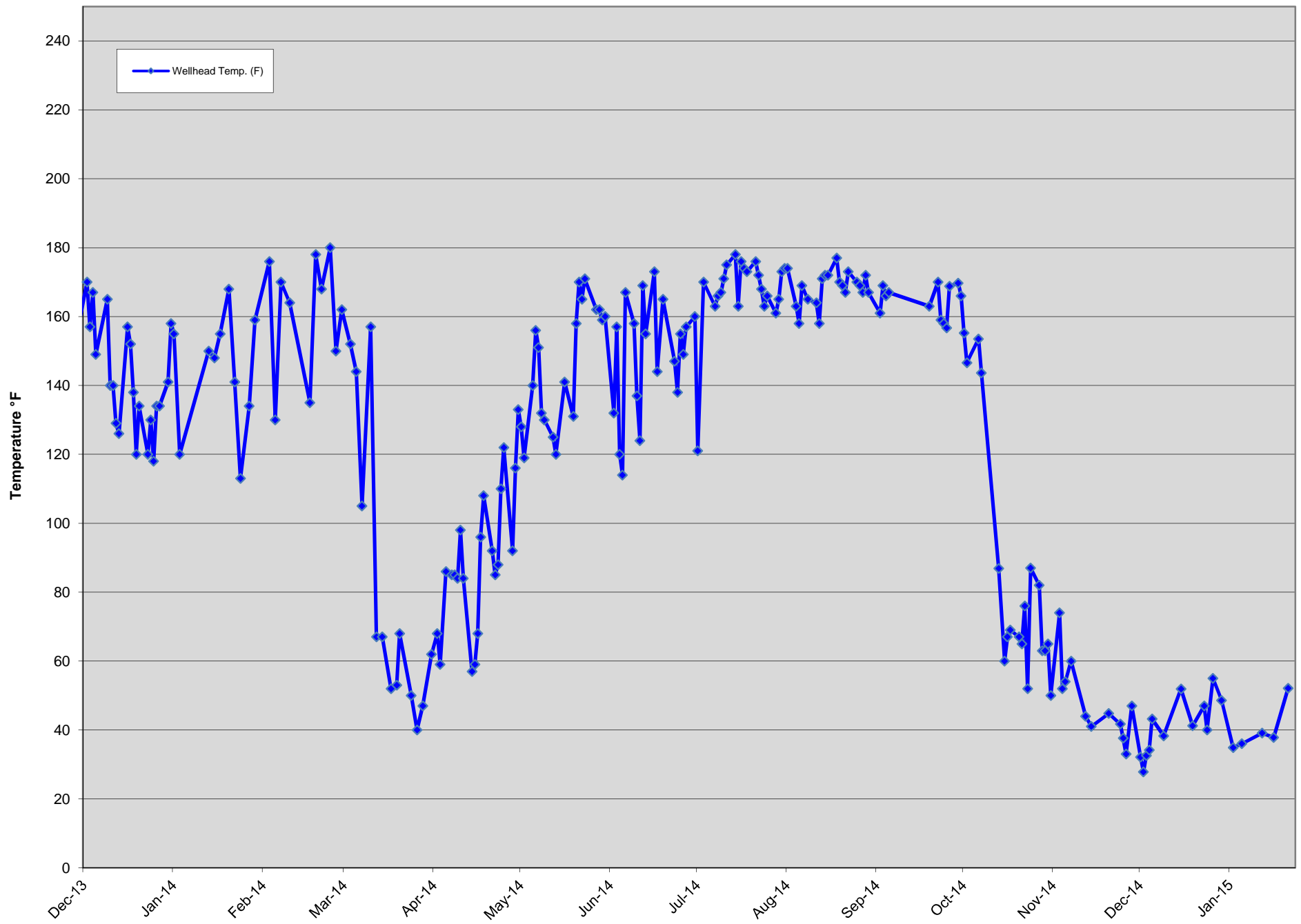
GIW-5 Wellhead Temperatures



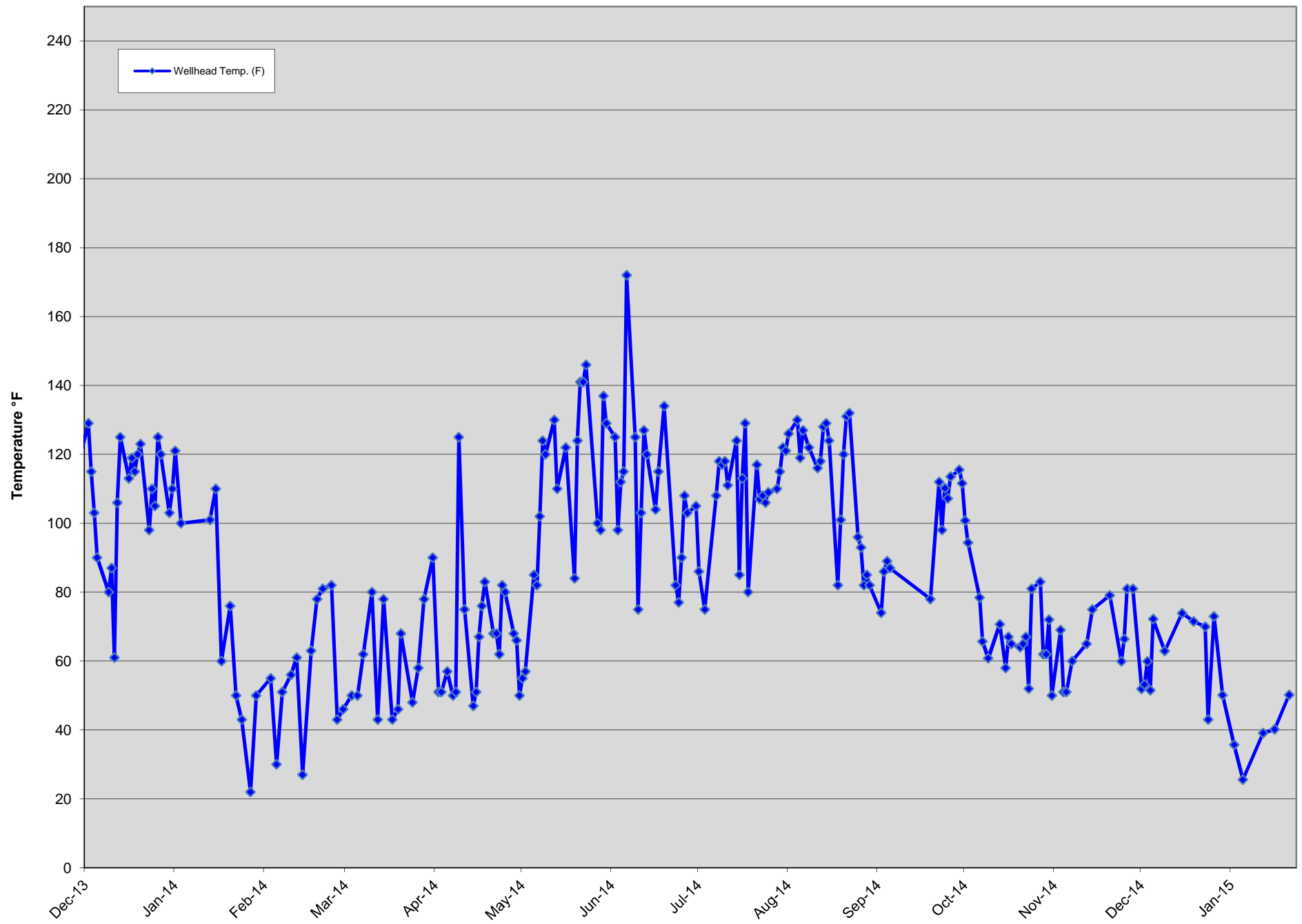
GIW-6 Wellhead Temperatures



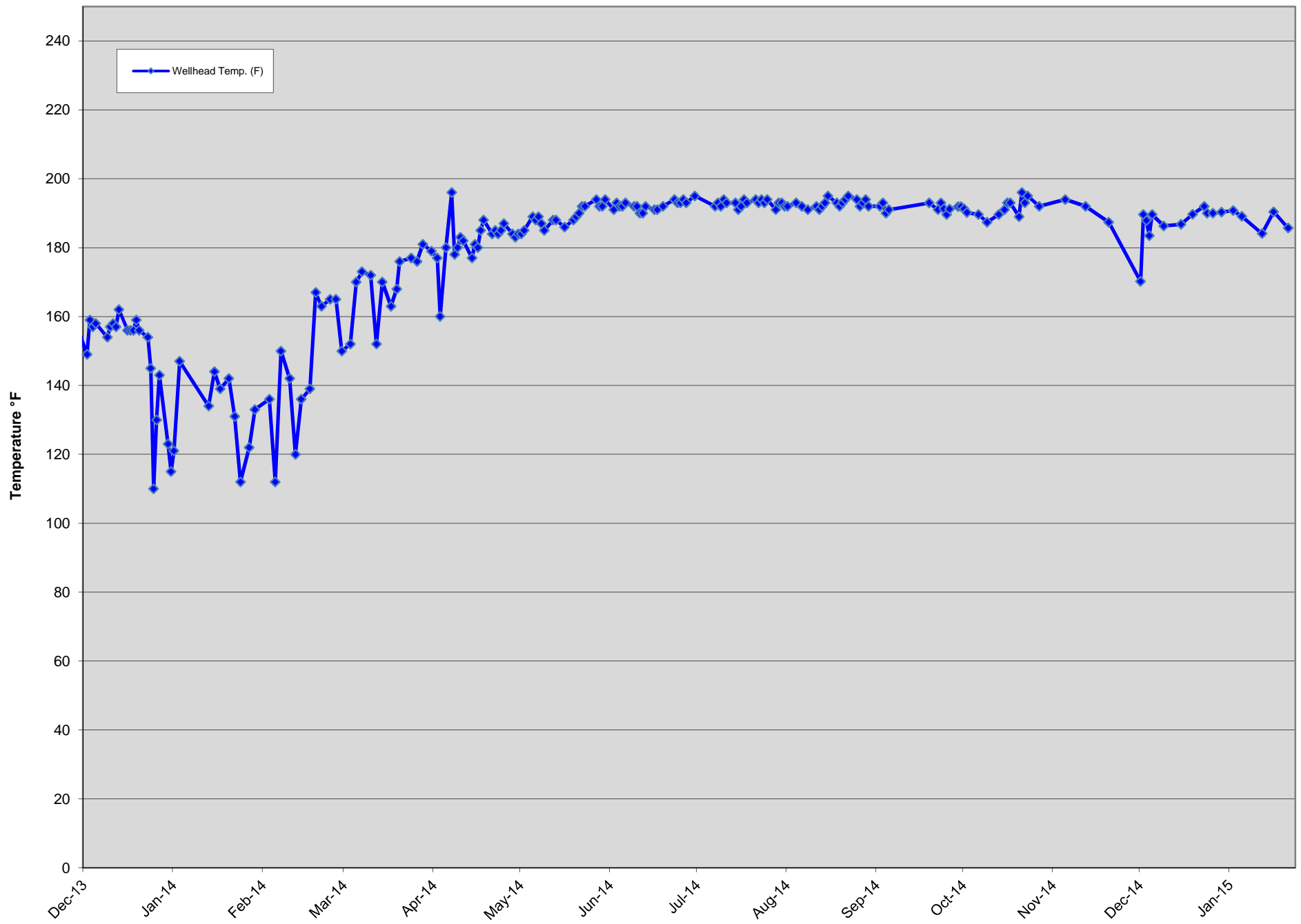
GIW-7 Wellhead Temperatures



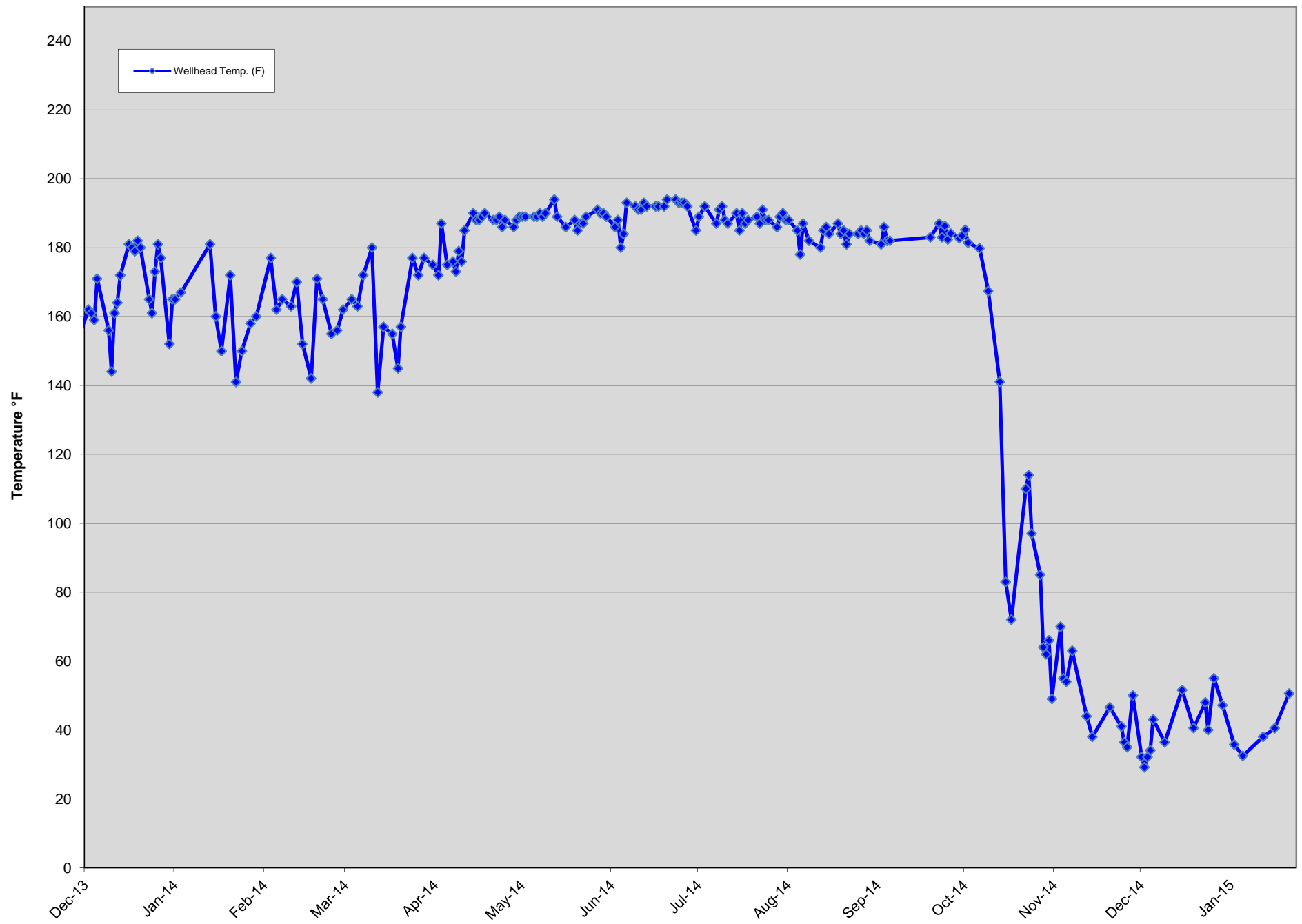
GIW-8 Wellhead Temperatures



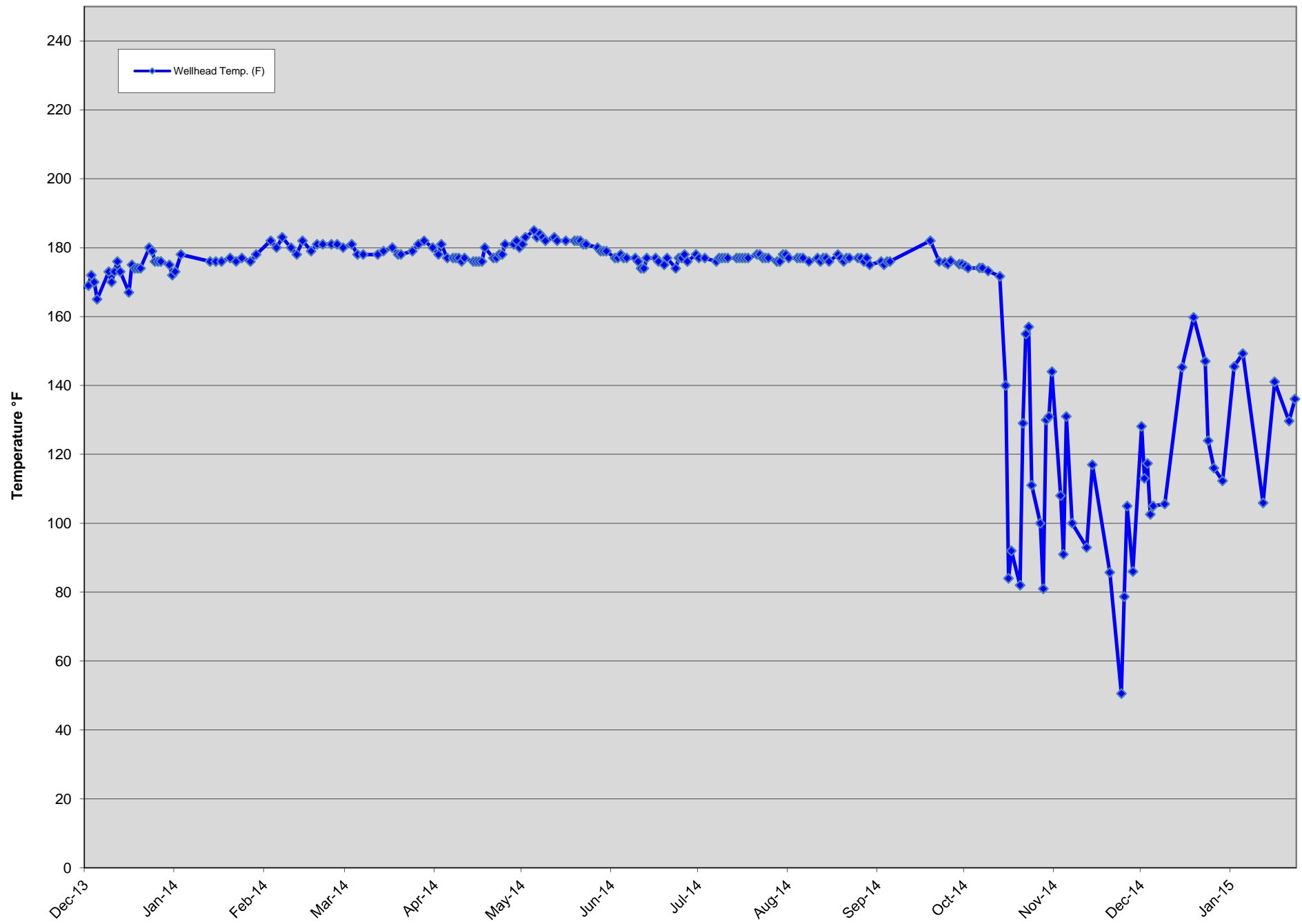
GIW-9 Wellhead Temperatures



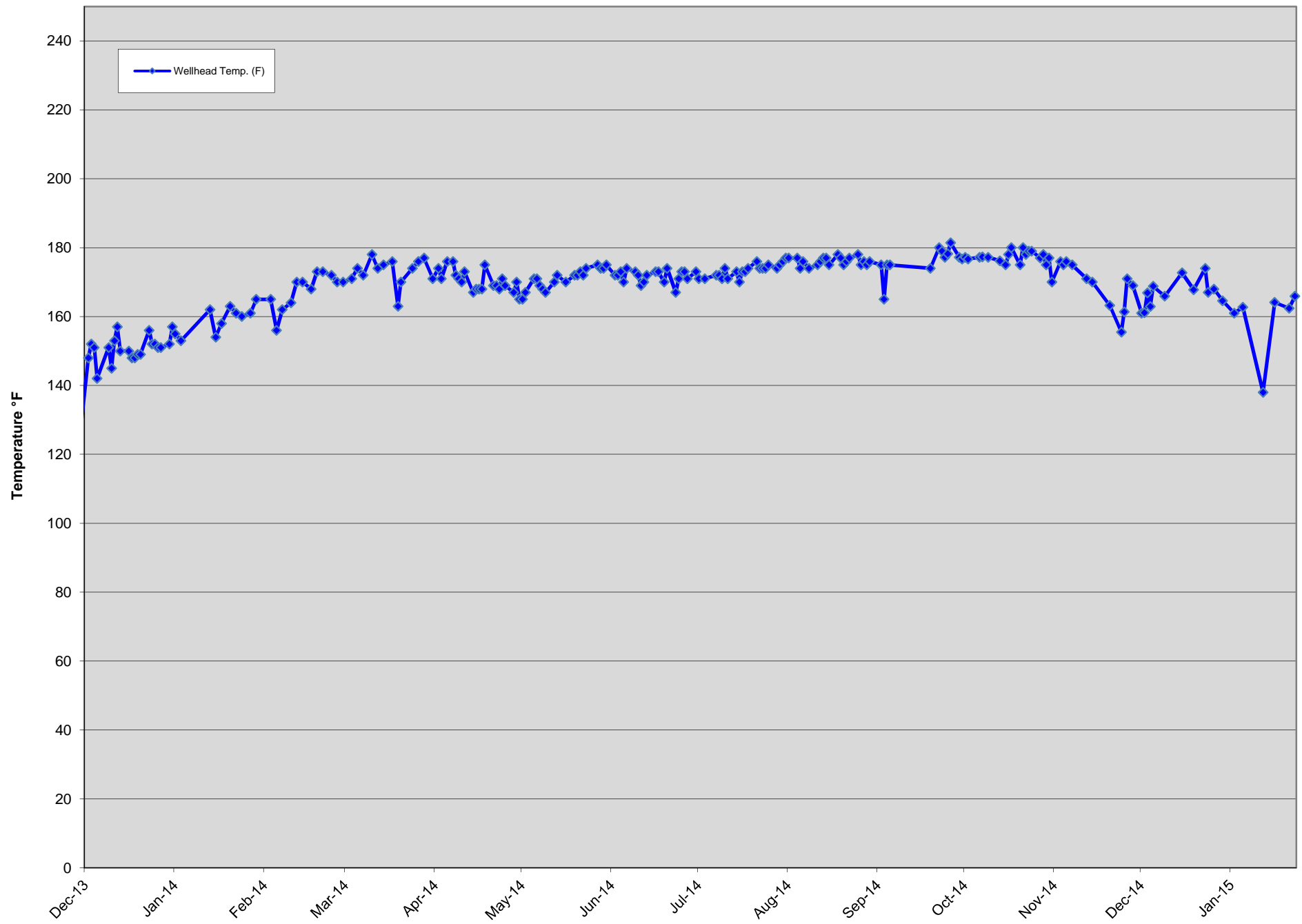
GIW-10 Wellhead Temperatures



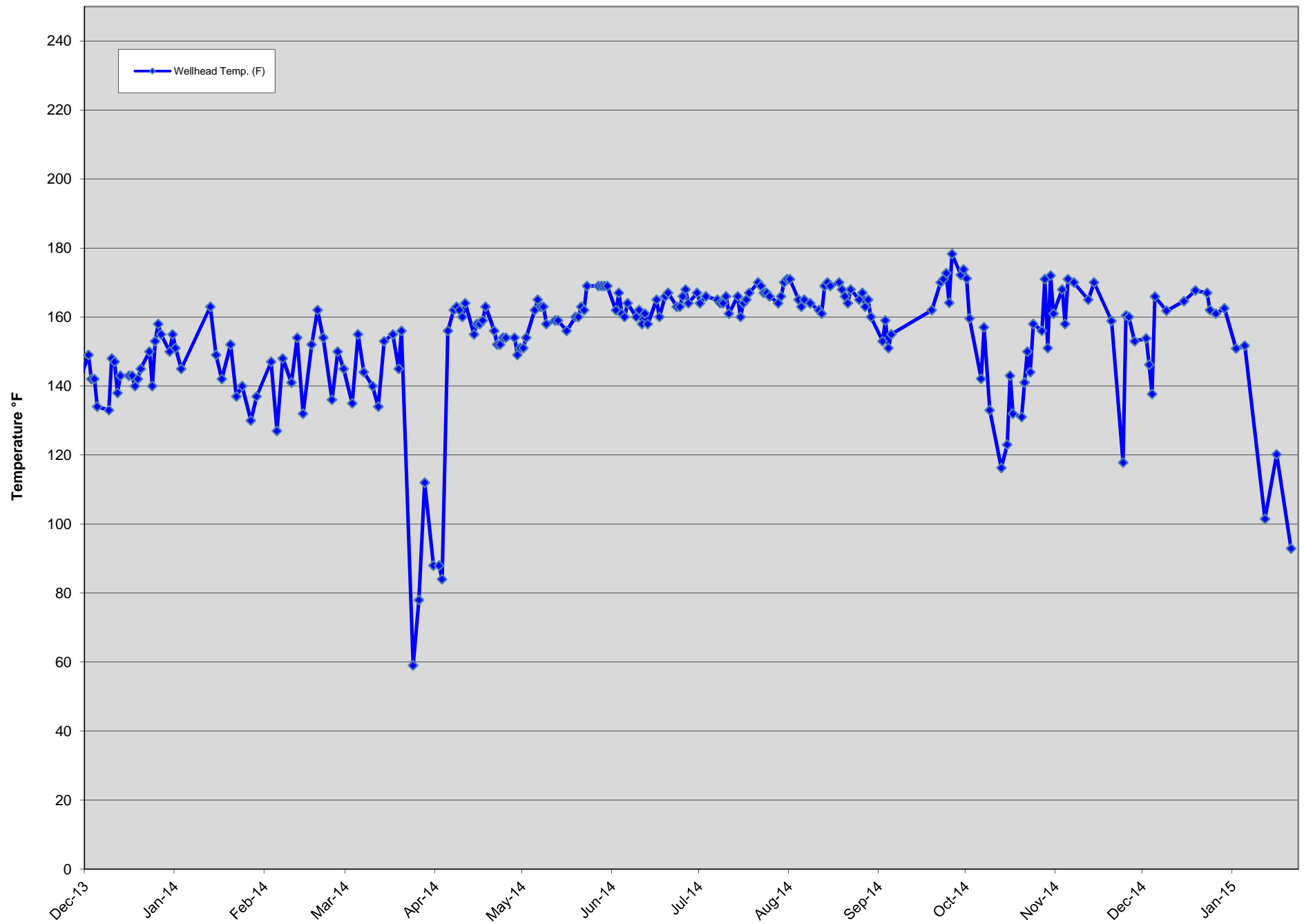
GIW-11 Wellhead Temperatures



GIW-12 Wellhead Temperatures



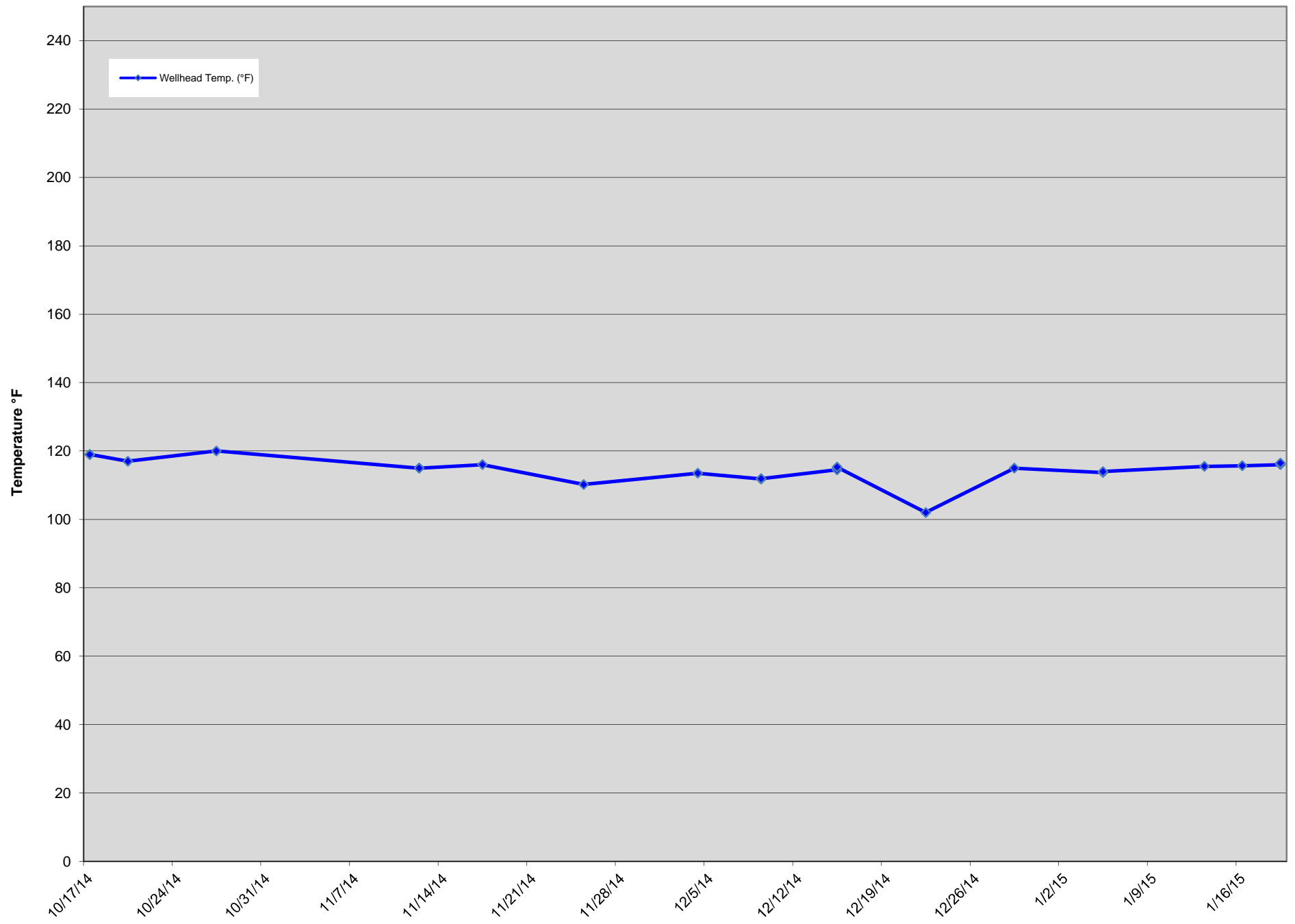
GIW-13 Wellhead Temperatures



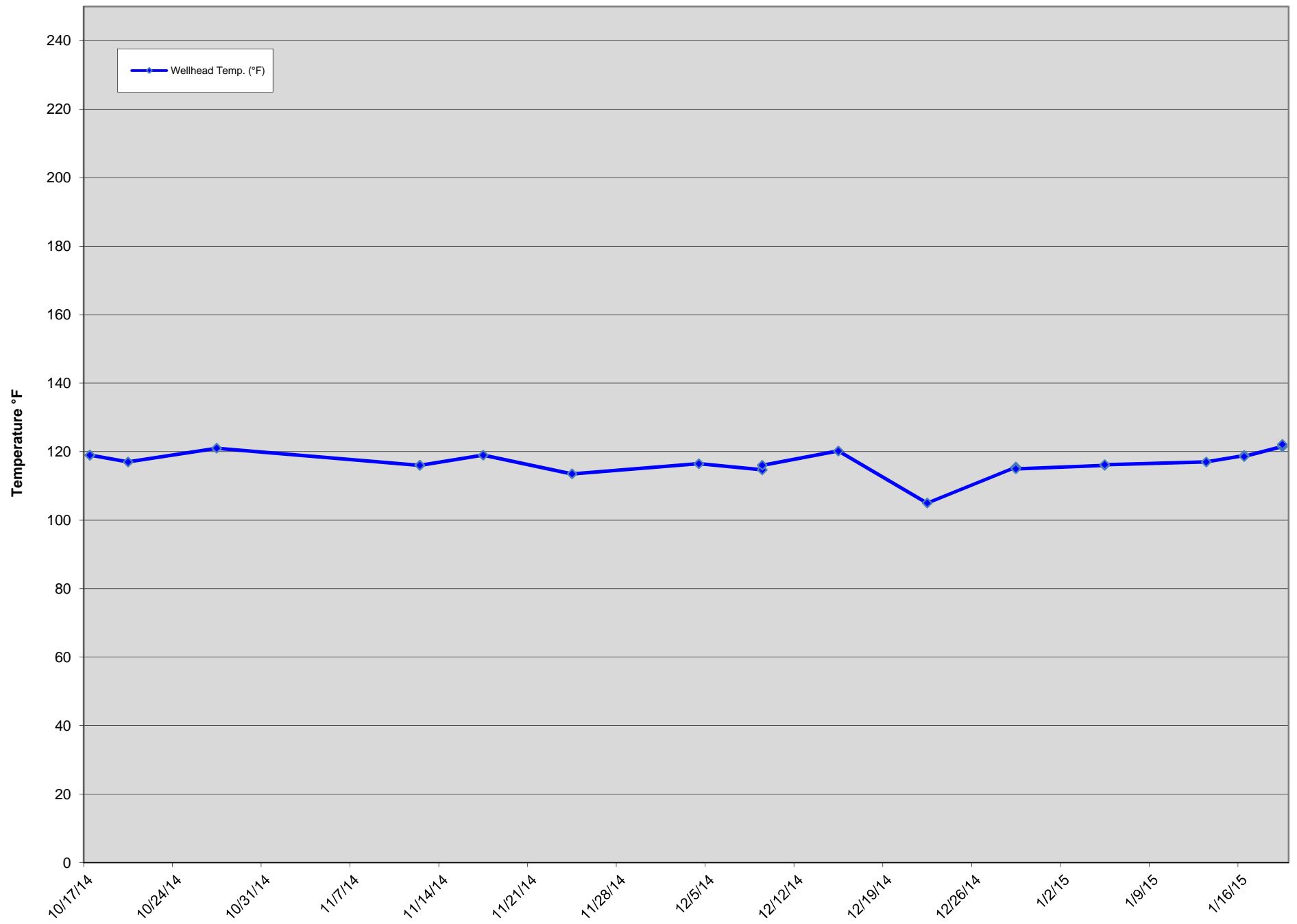
ATTACHMENT D

NECK-AREA GAS EXTRACTION WELL DATA

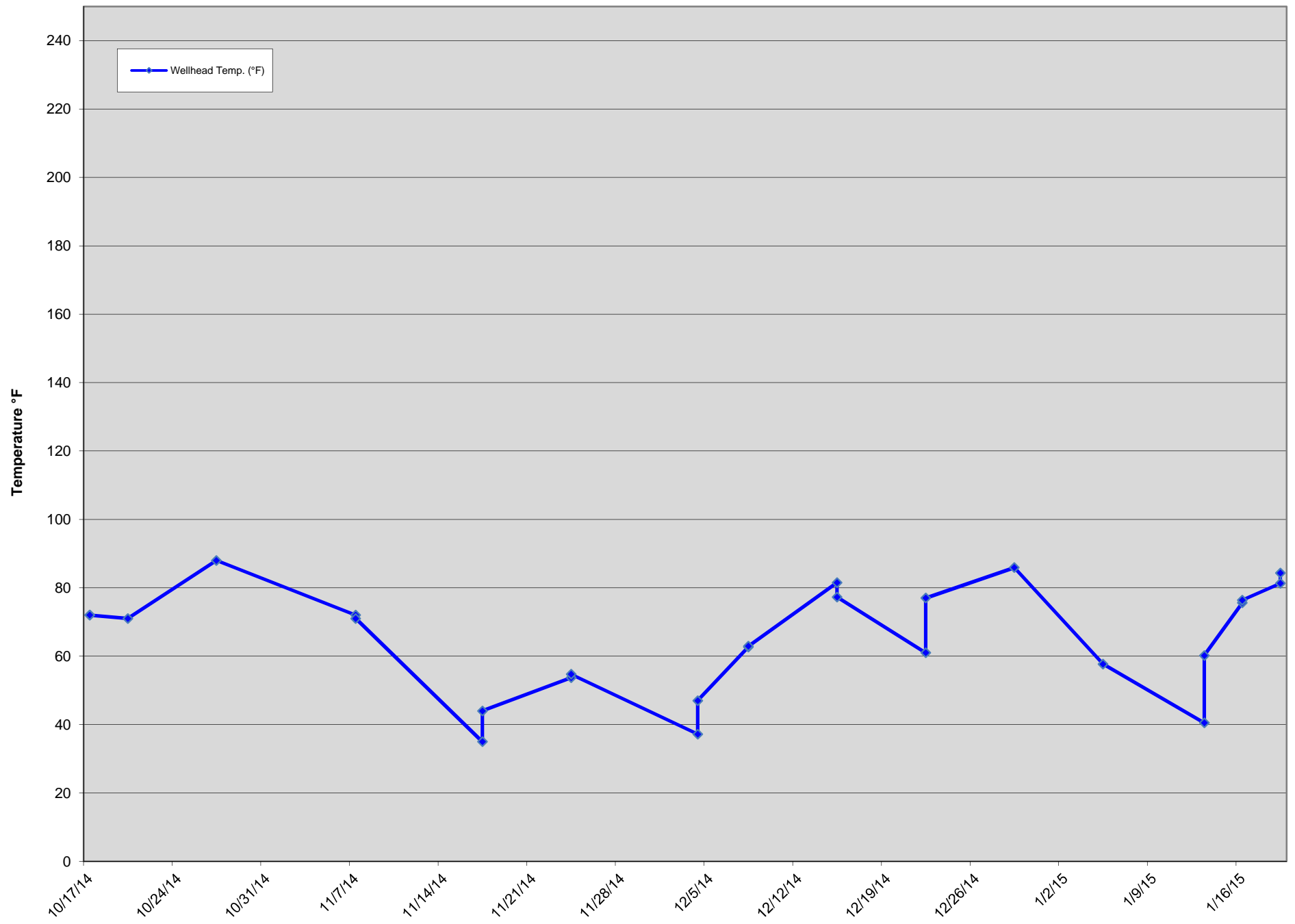
GEW-008 Wellhead Temperatures



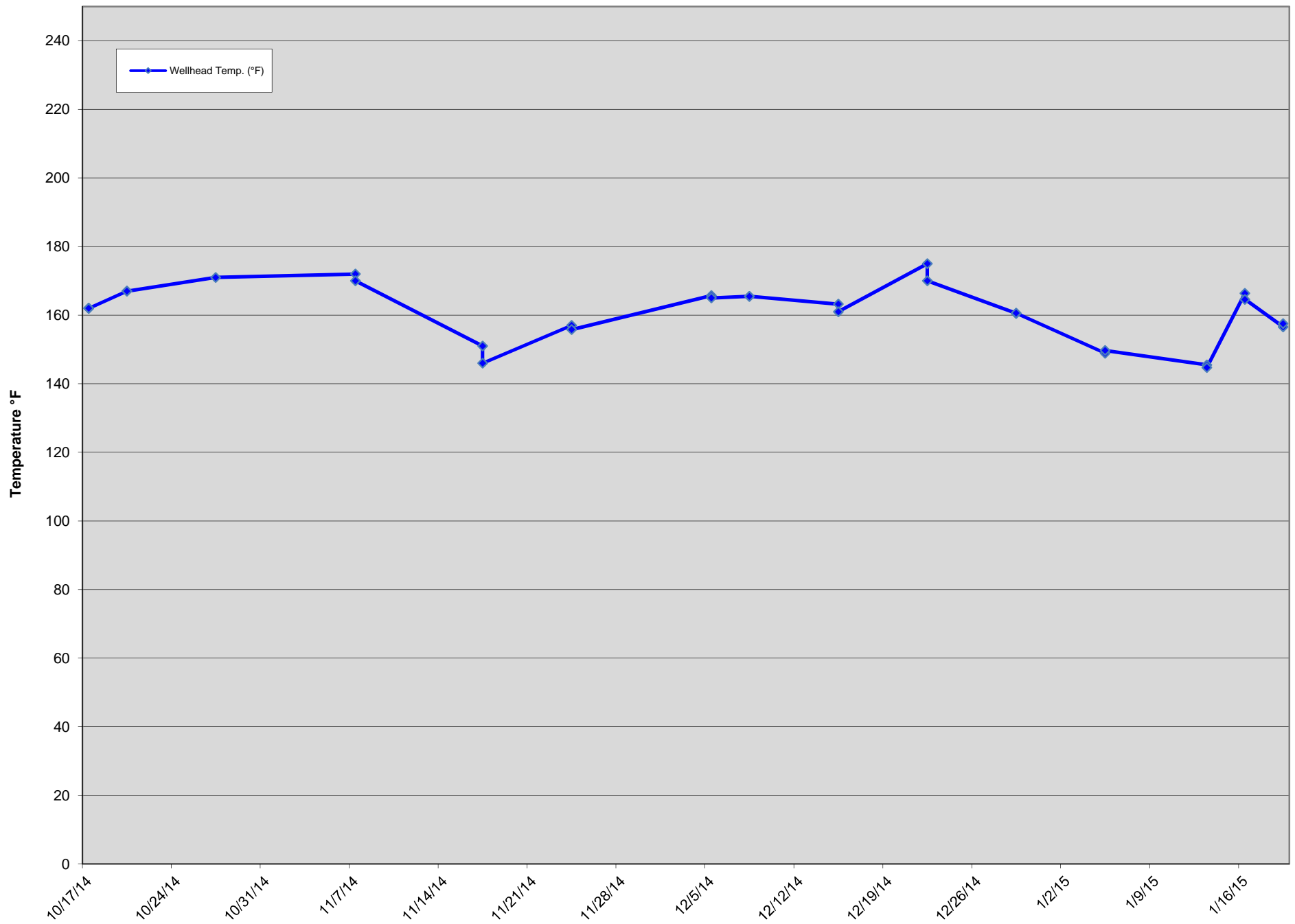
GEW-009 Wellhead Temperatures



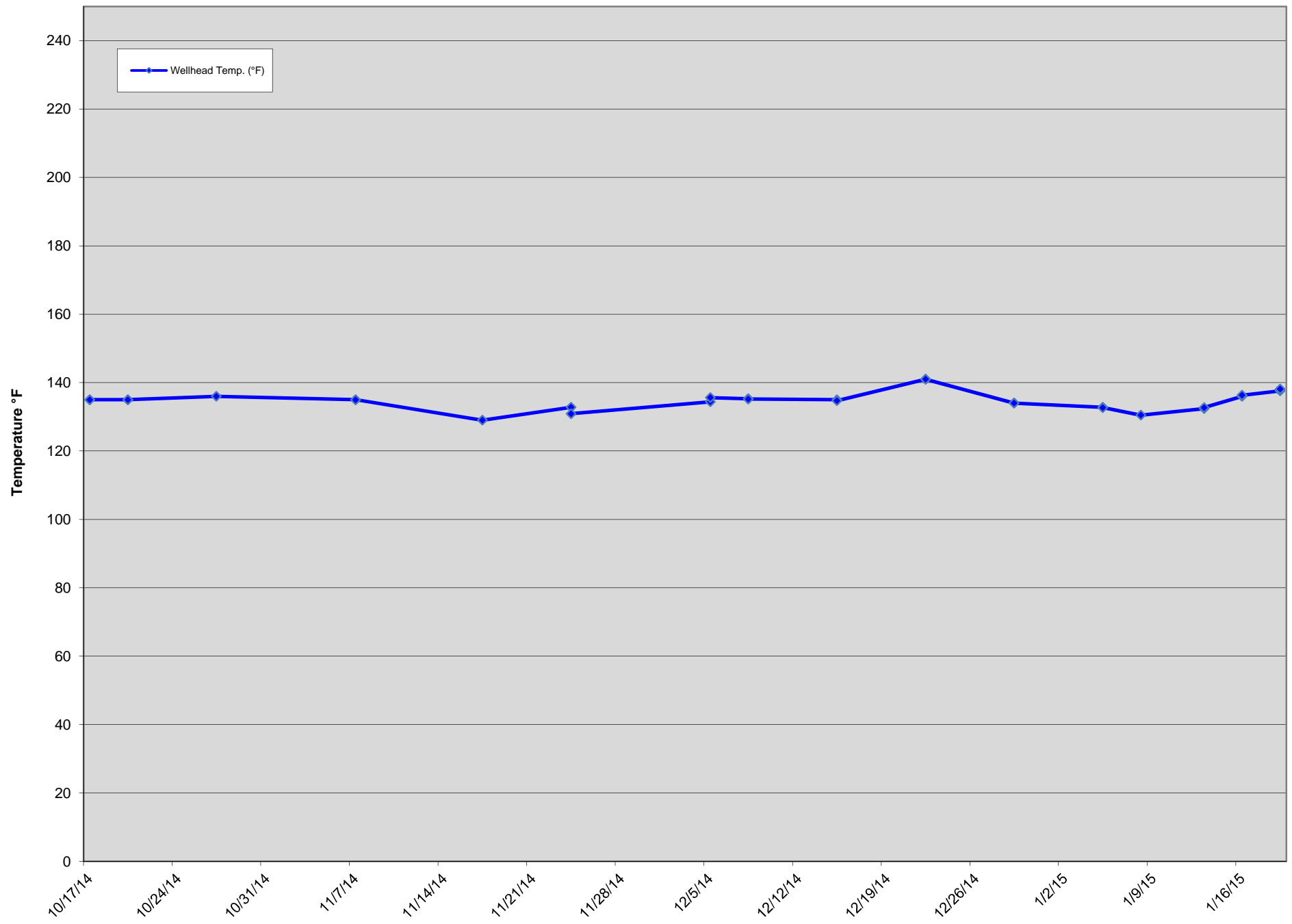
GEW-010 Wellhead Temperatures



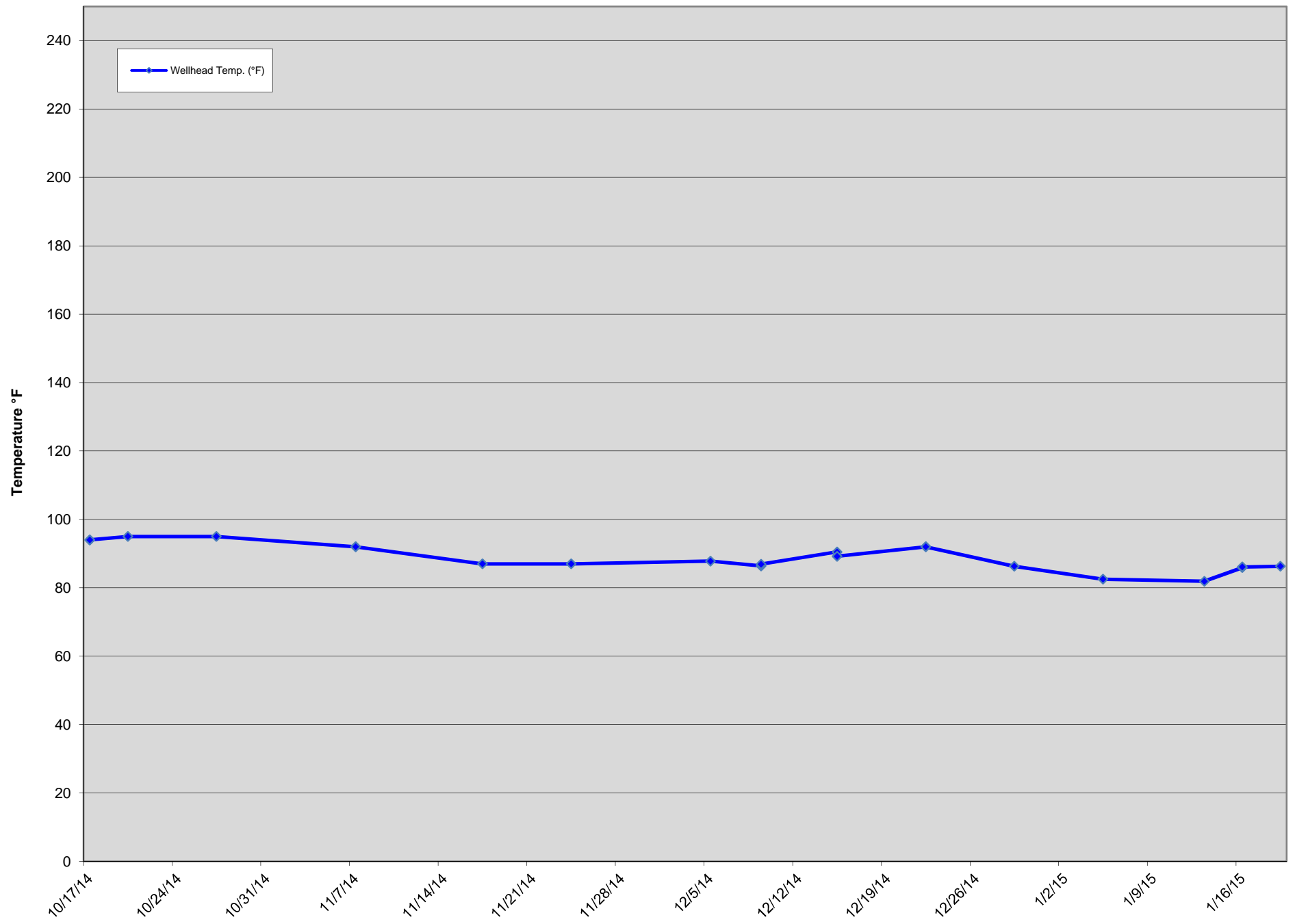
GEW-038 Wellhead Temperatures



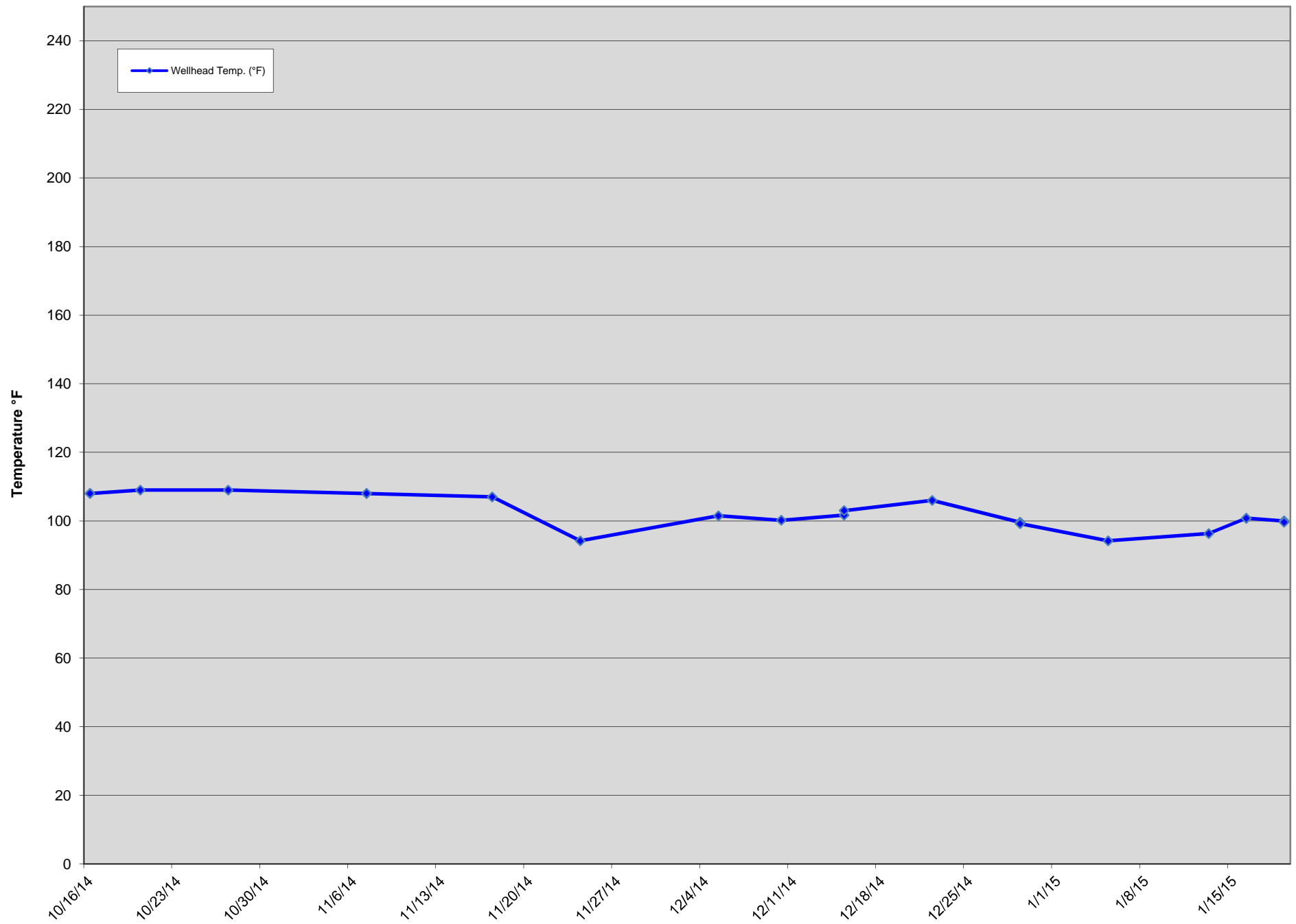
GEW-039 Wellhead Temperatures



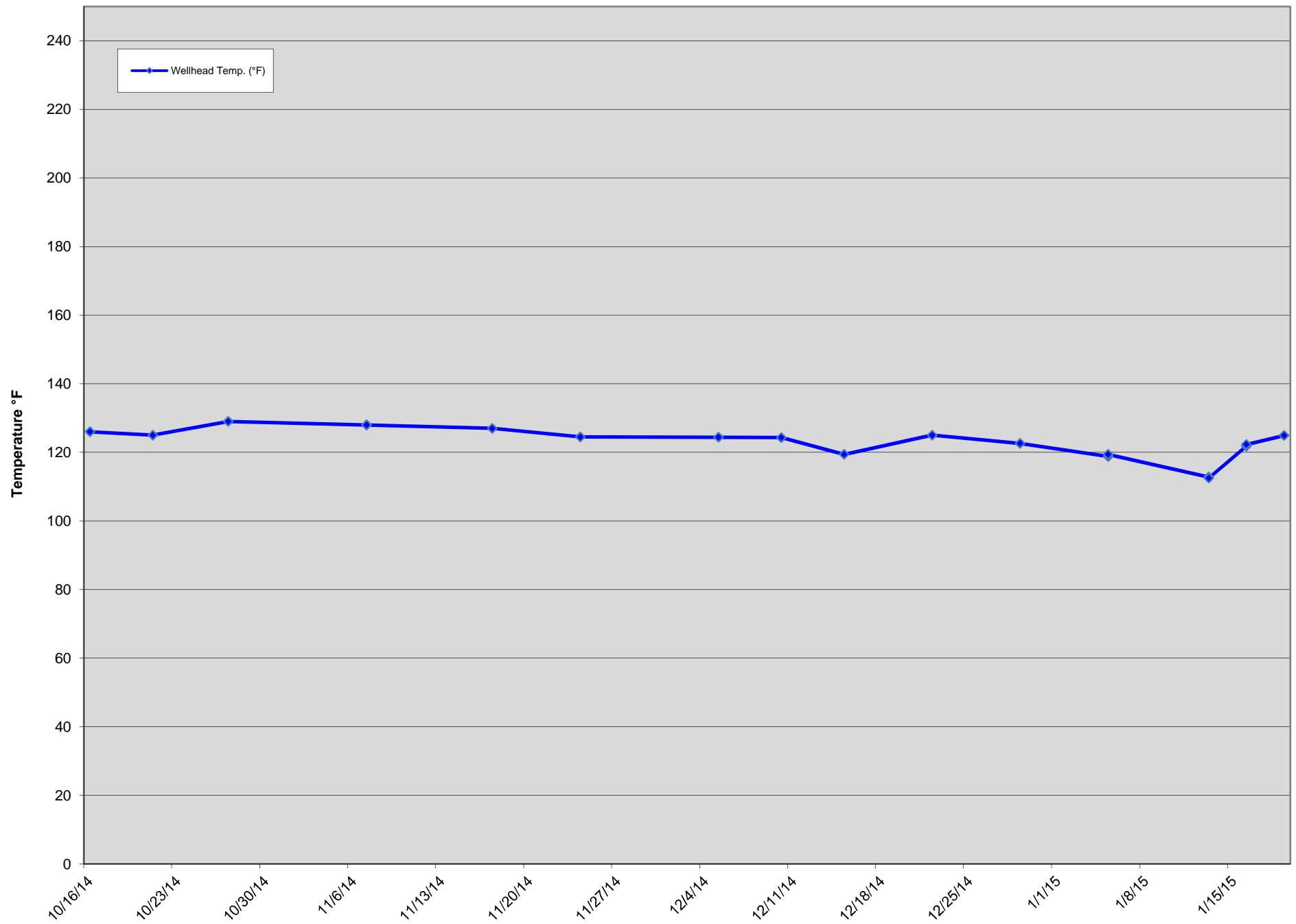
GEW-040 Wellhead Temperatures



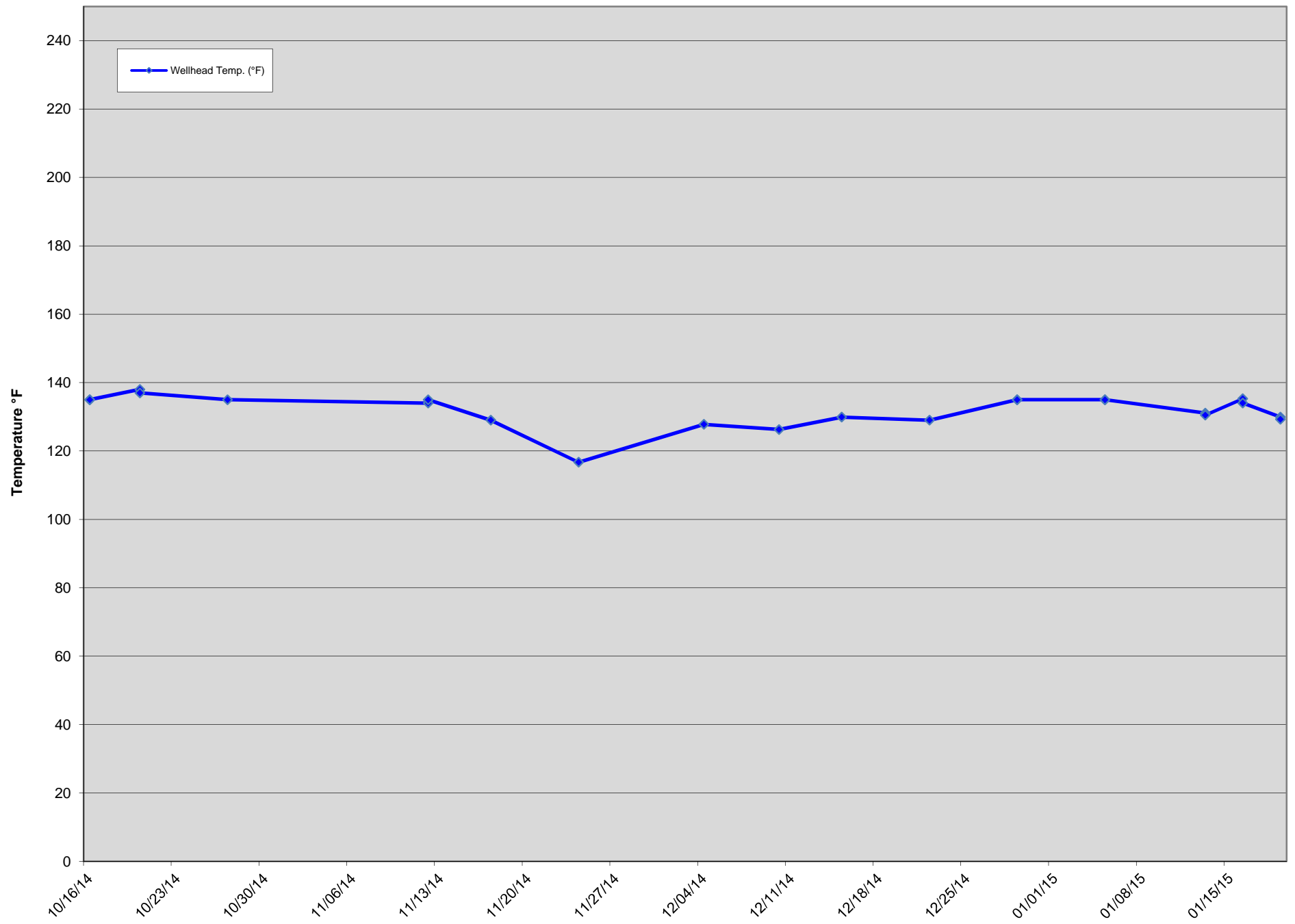
GEW-041R Wellhead Temperatures



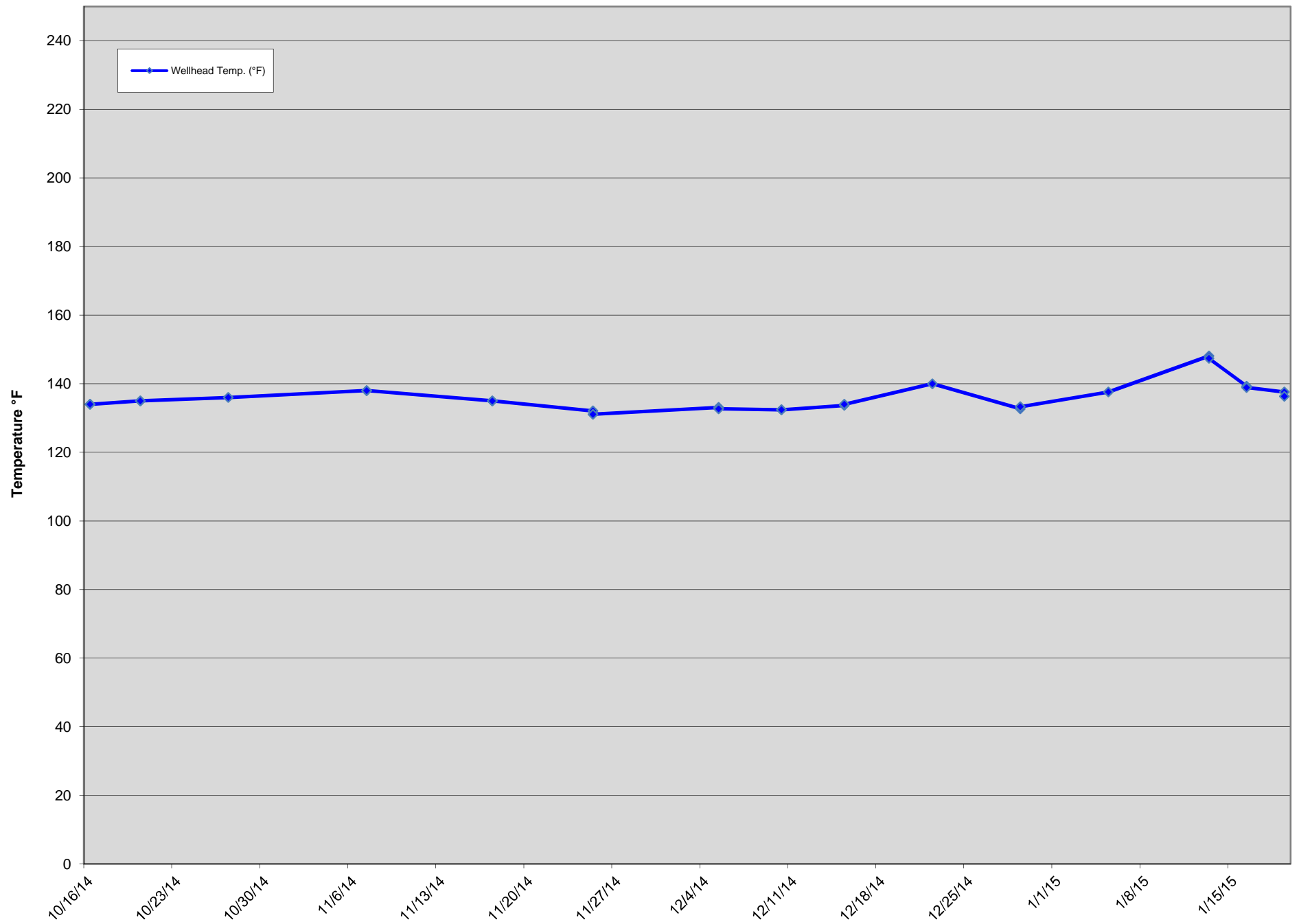
GEW-043R Wellhead Temperatures



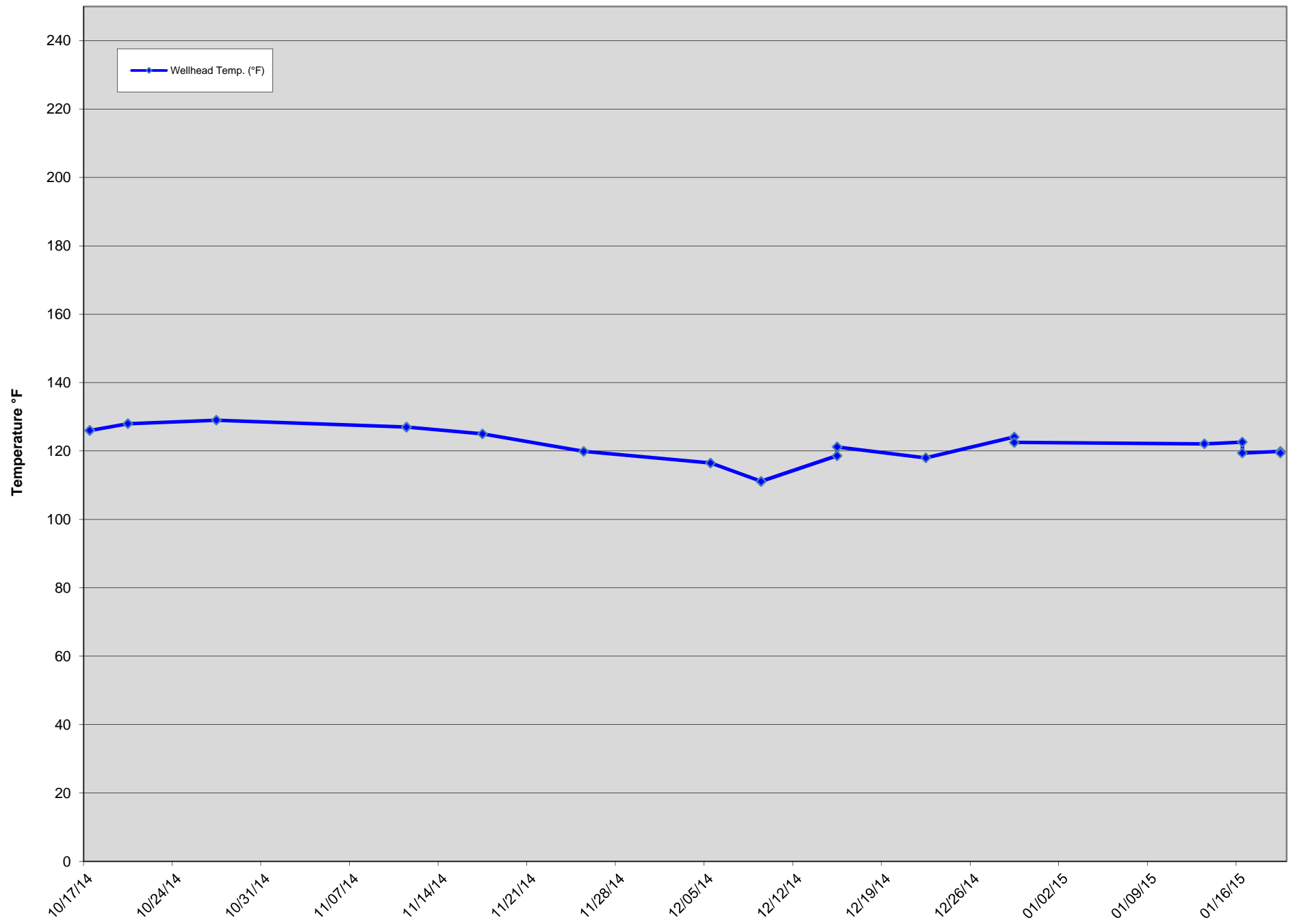
GEW-053 Wellhead Temperatures



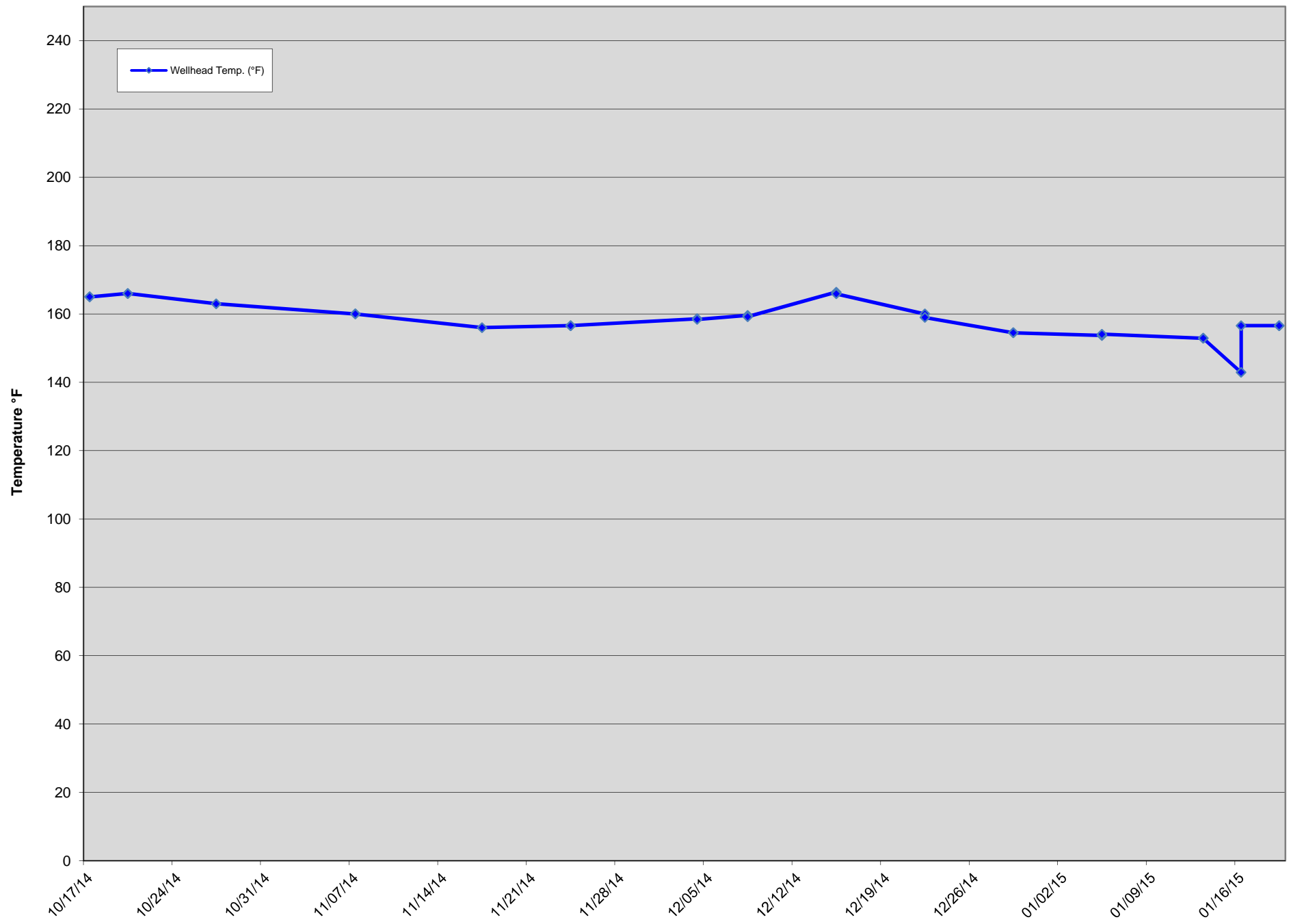
GEW-054 Wellhead Temperatures



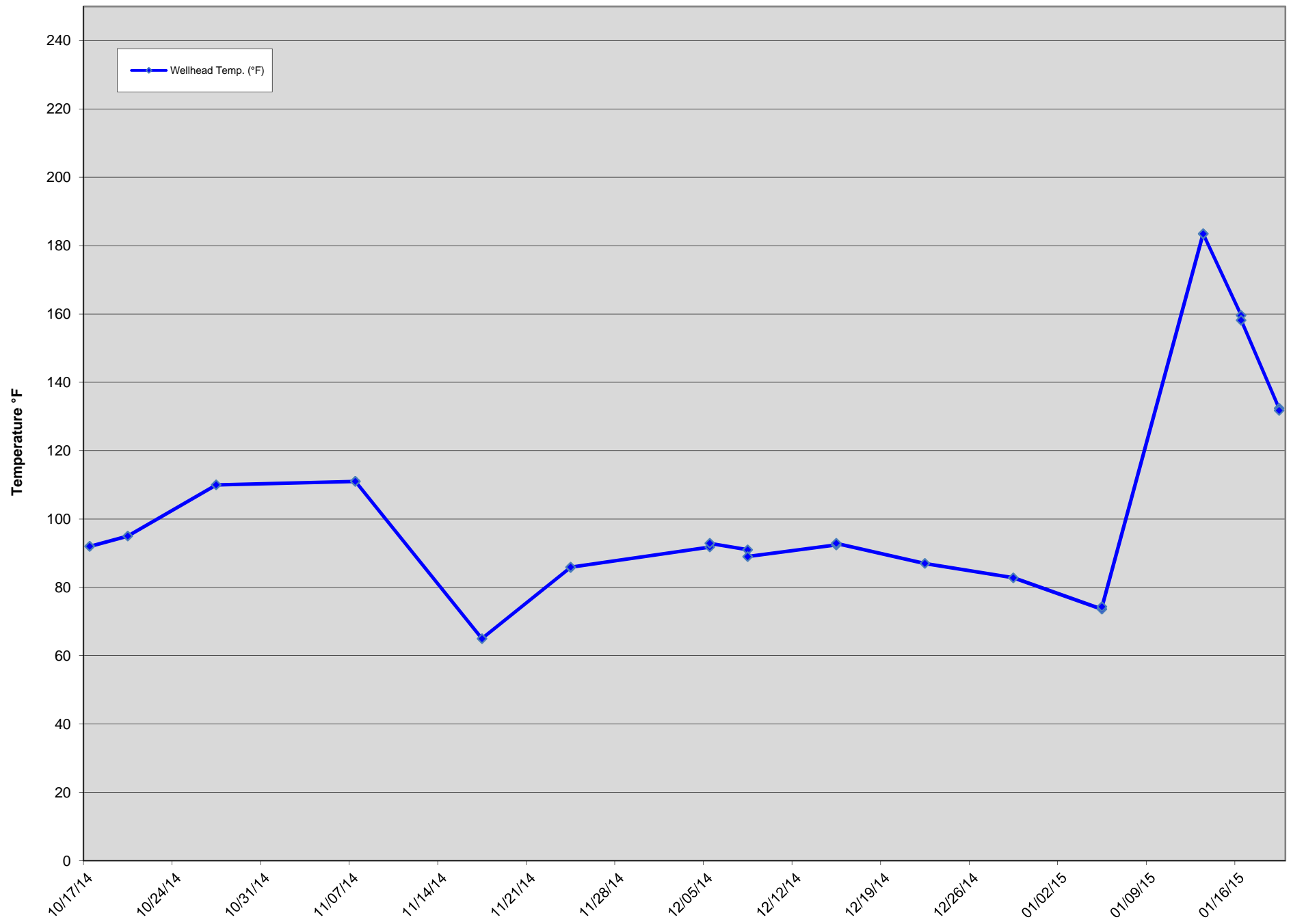
GEW-055 Wellhead Temperatures



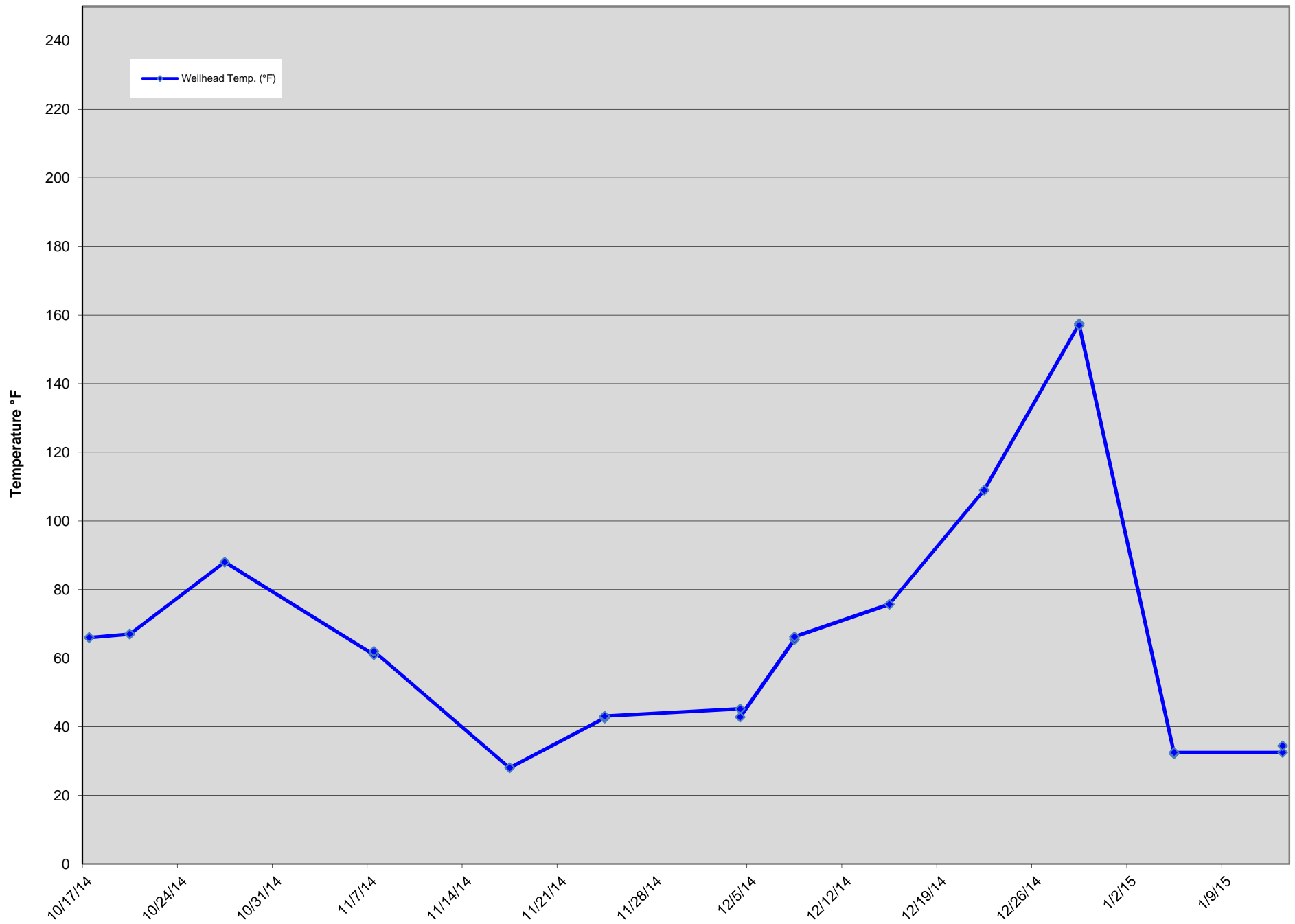
GEW-056R Wellhead Temperatures



GEW-109 Wellhead Temperatures



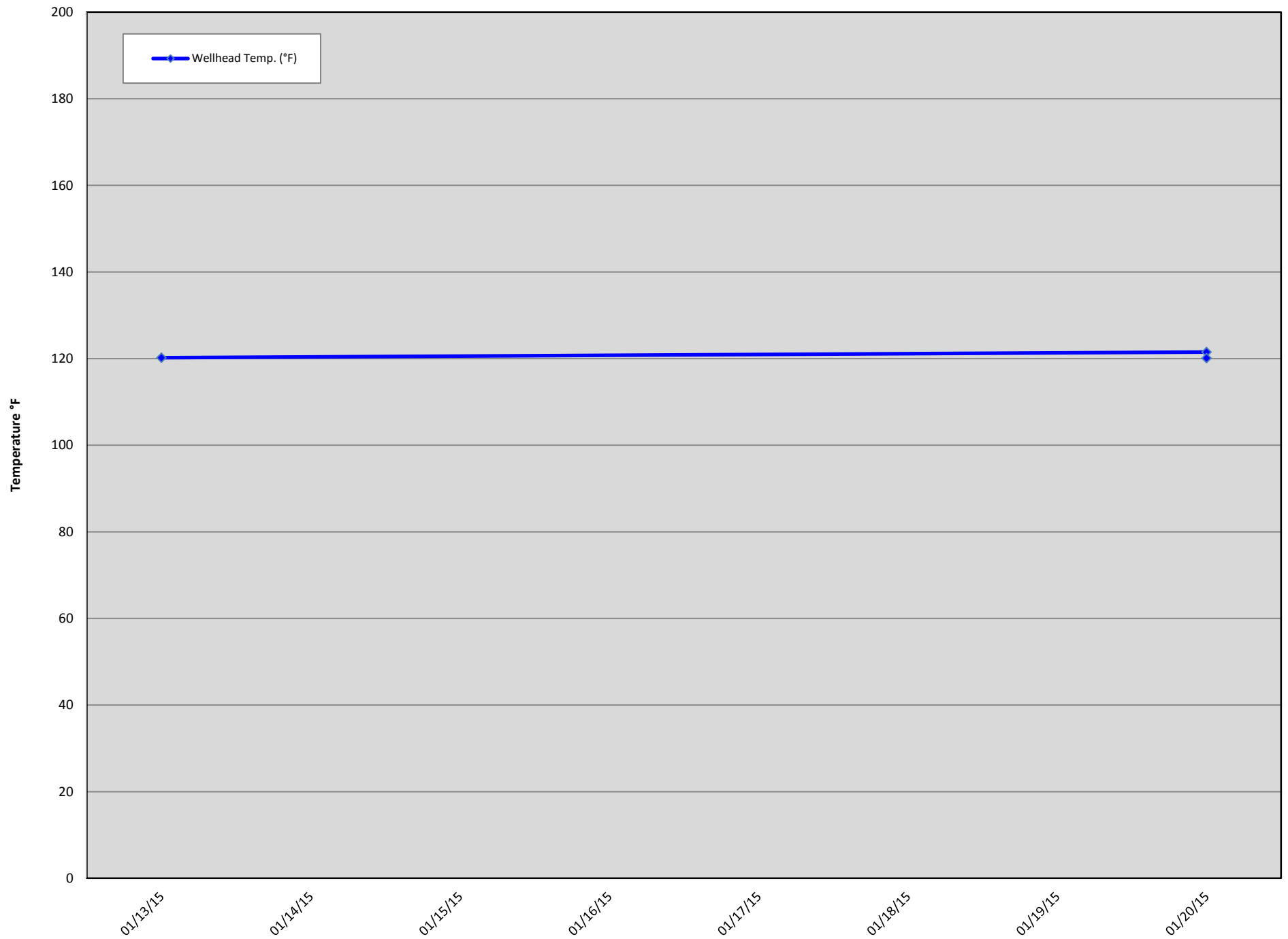
GEW-110 Wellhead Temperatures



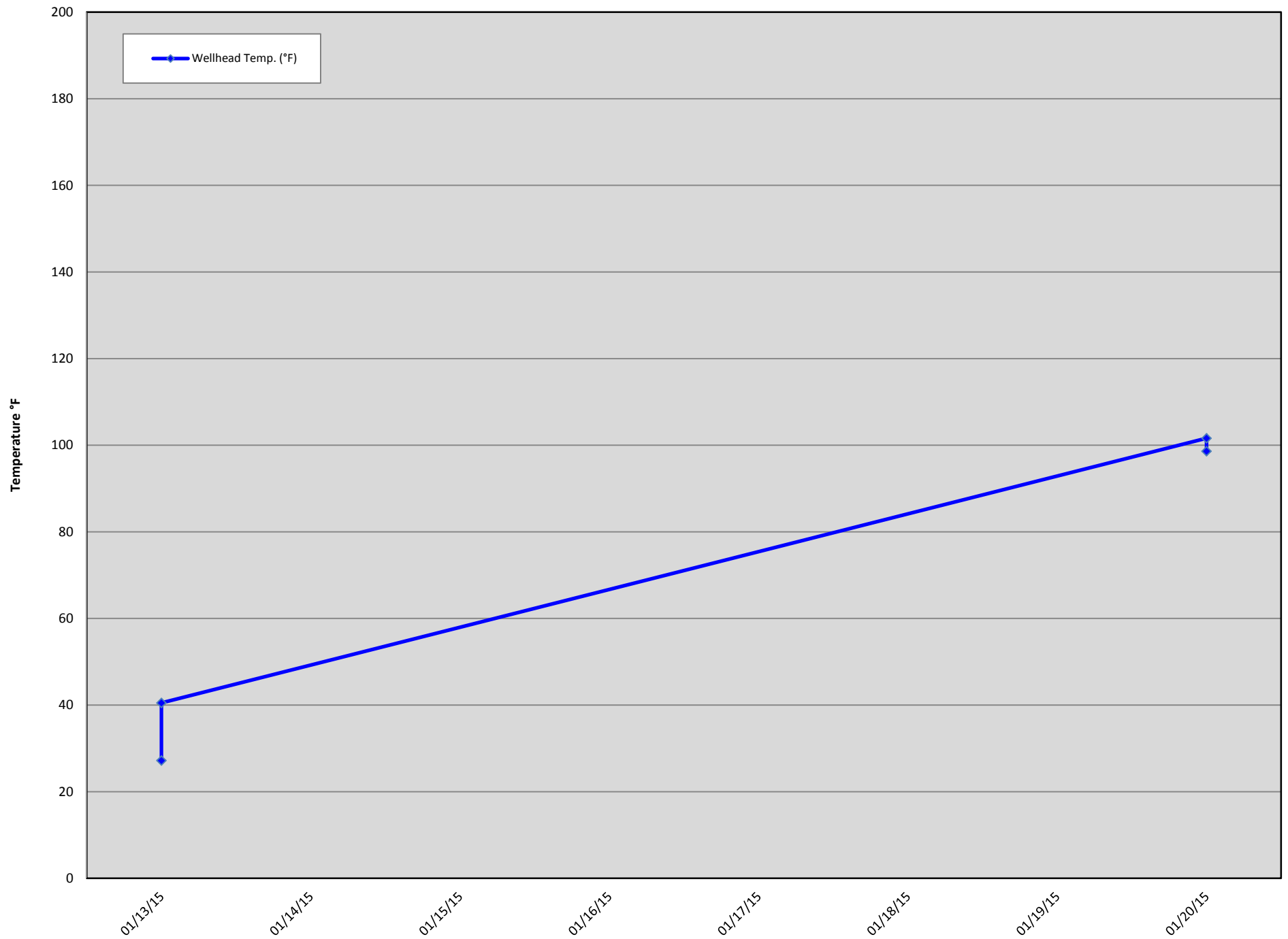
ATTACHMENT E

NORTH QUARRY GAS EXTRACTION WELL DATA

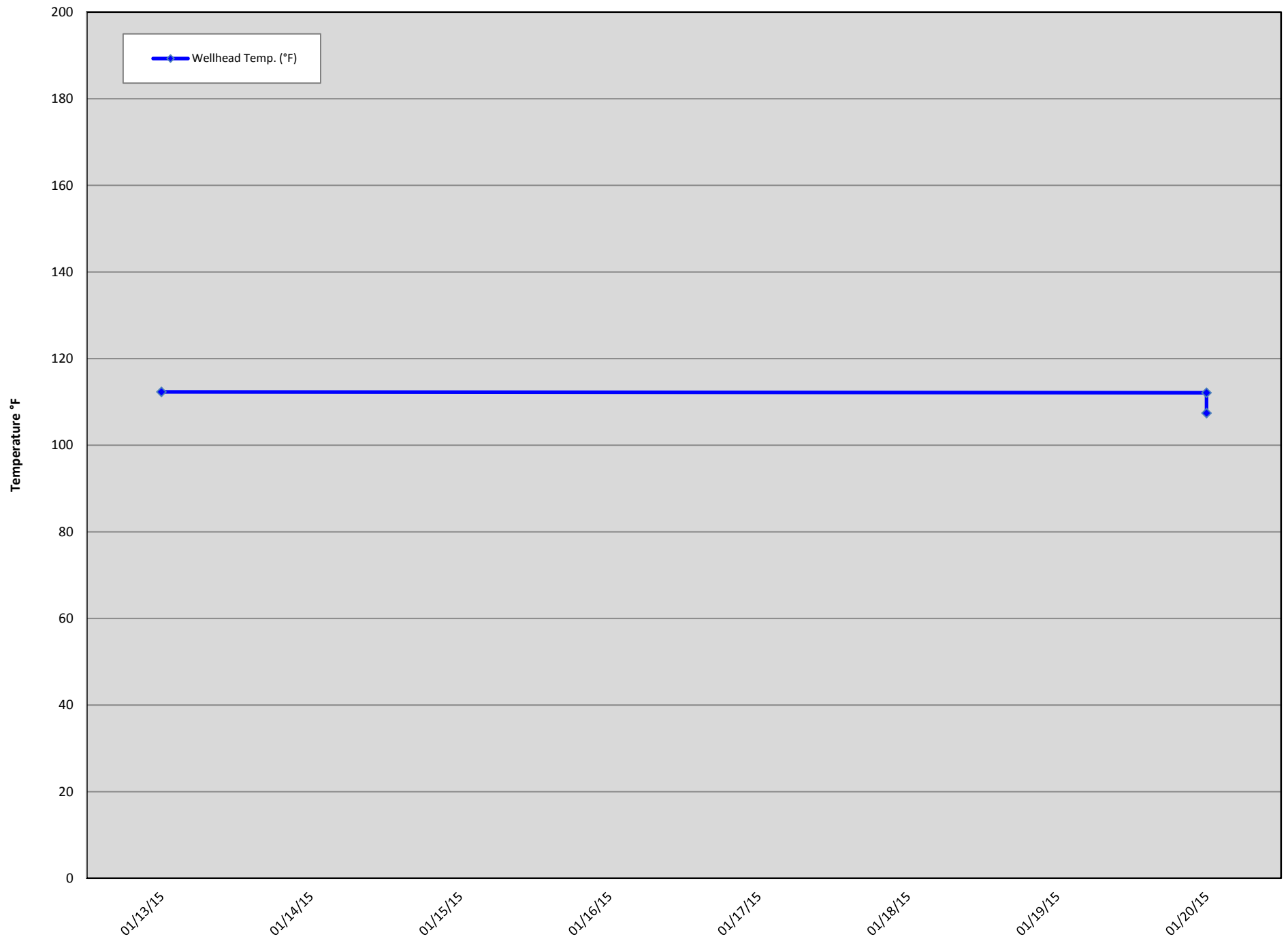
GEW-002 Wellhead Temperature



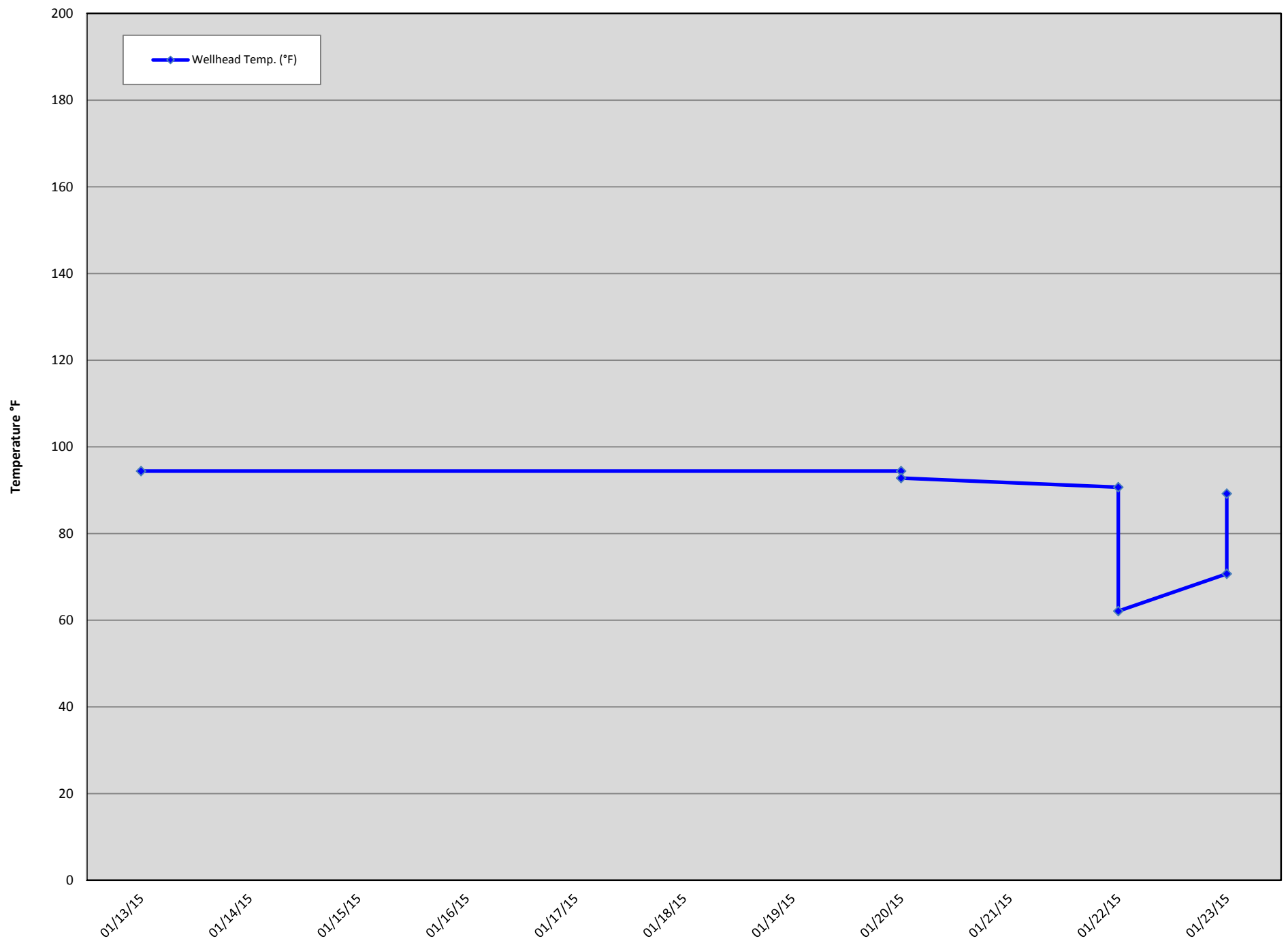
GEW-003 Wellhead Temperature



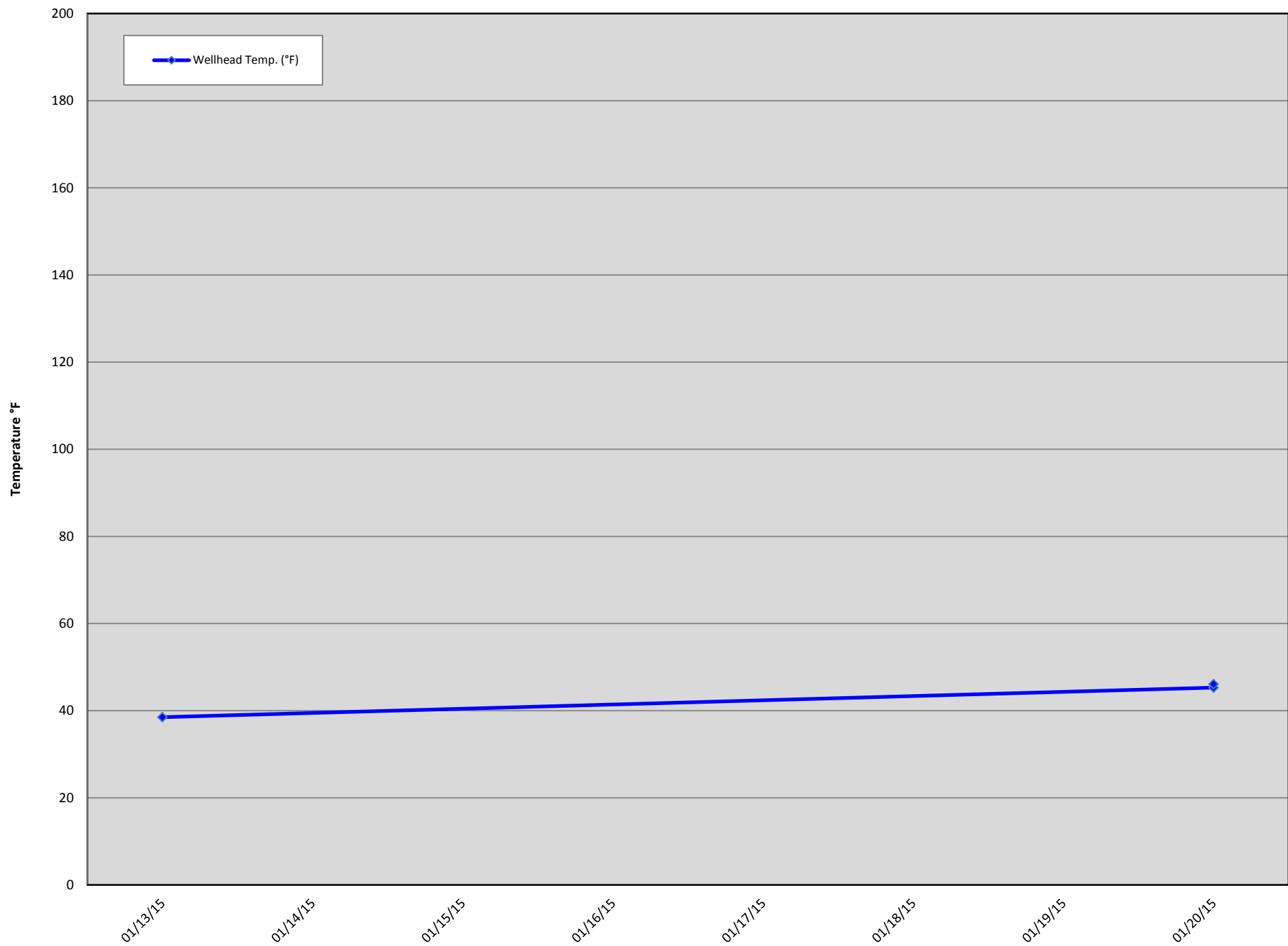
GEW-004 Wellhead Temperature



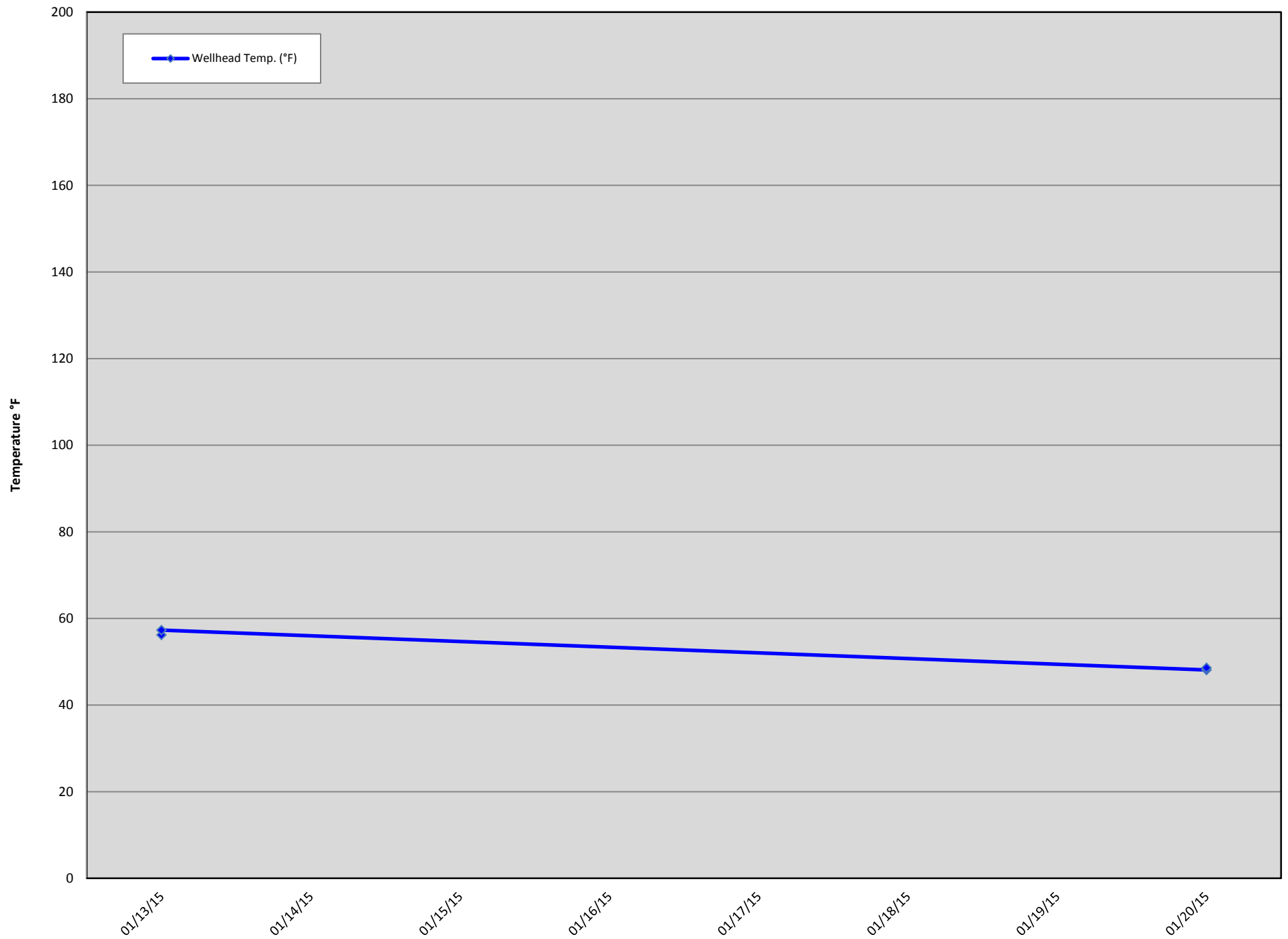
GEW-005 Wellhead Temperature



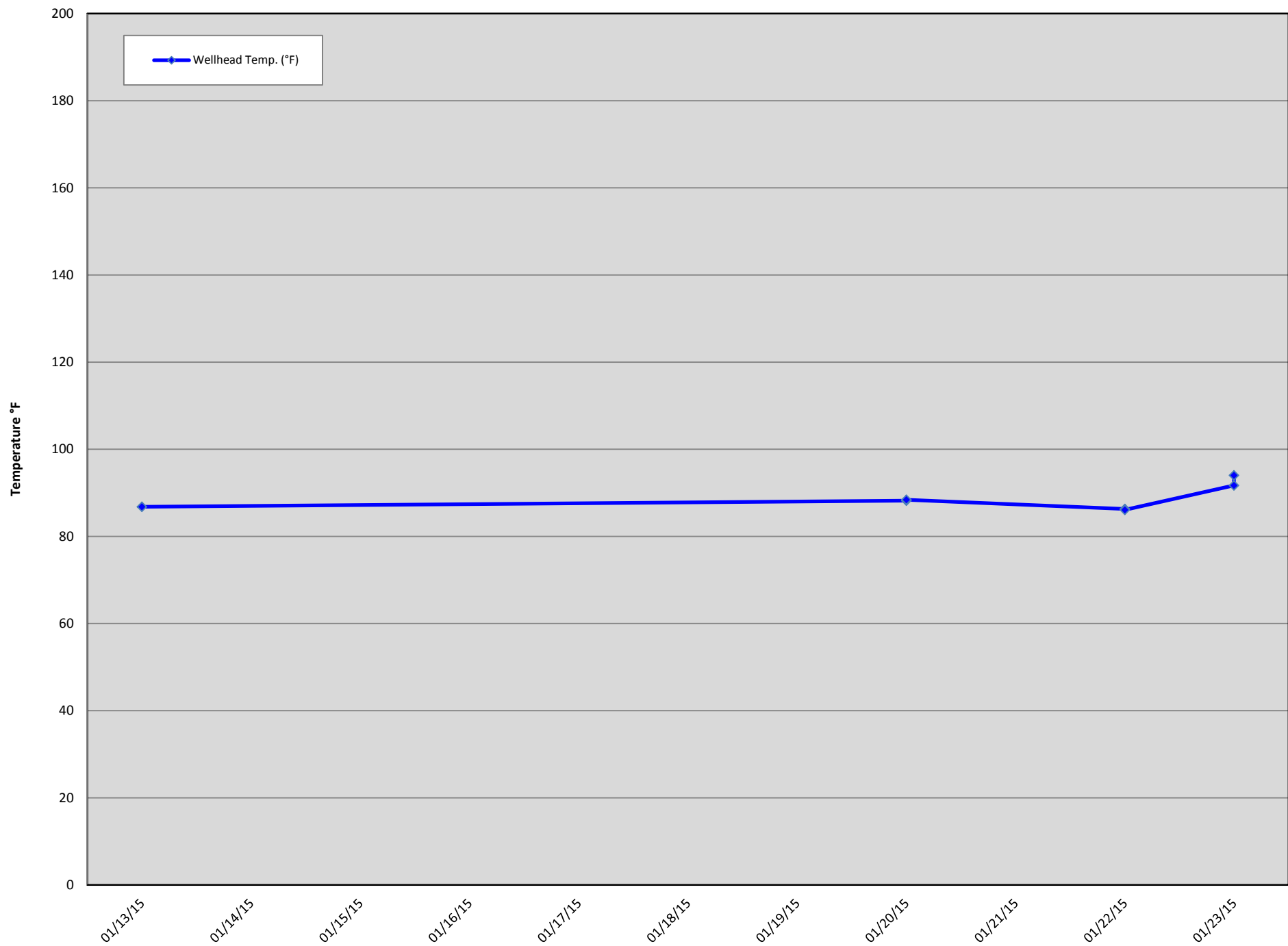
GEW-042R Wellhead Temperature



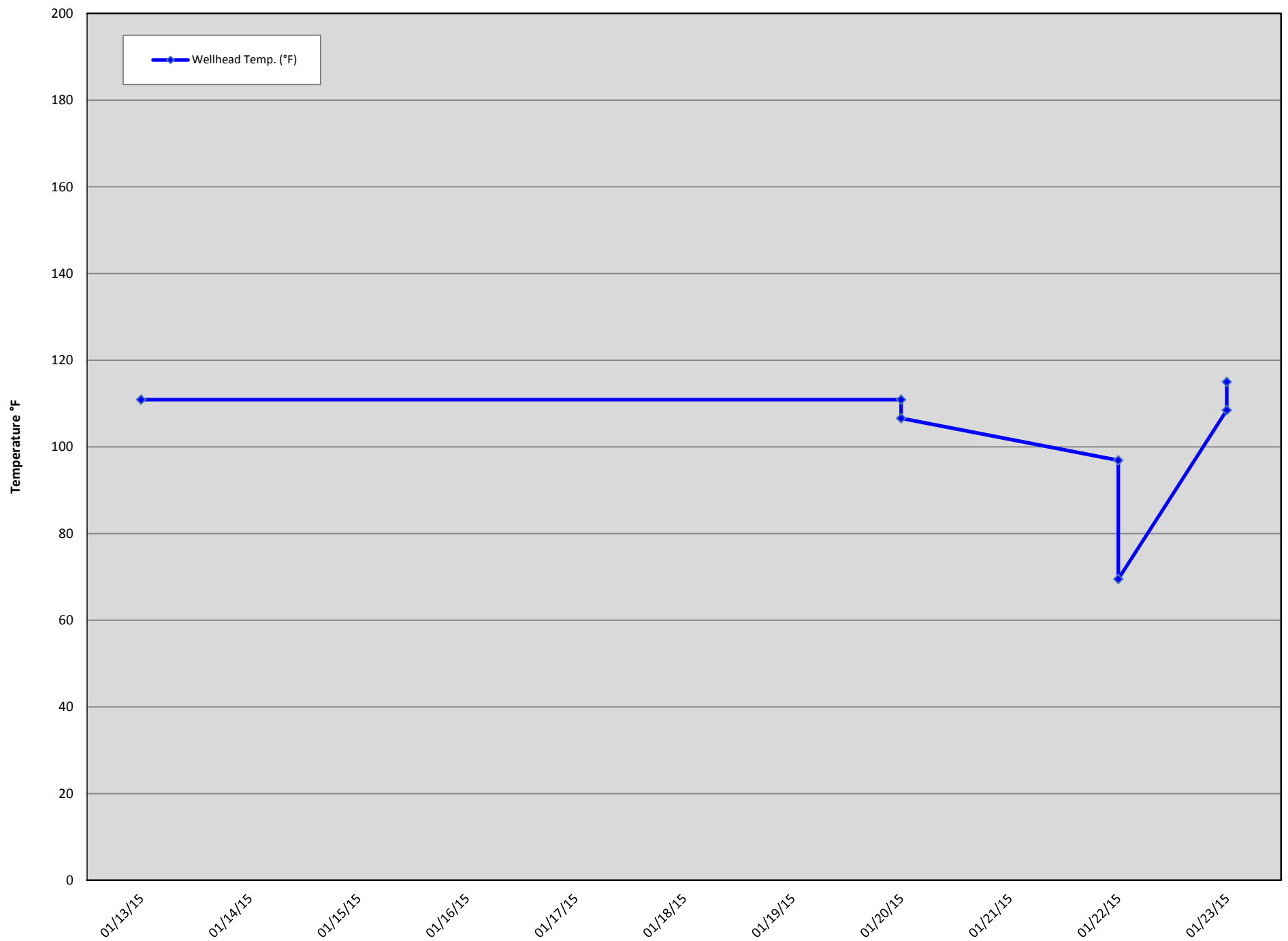
GEW-045R Wellhead Temperature



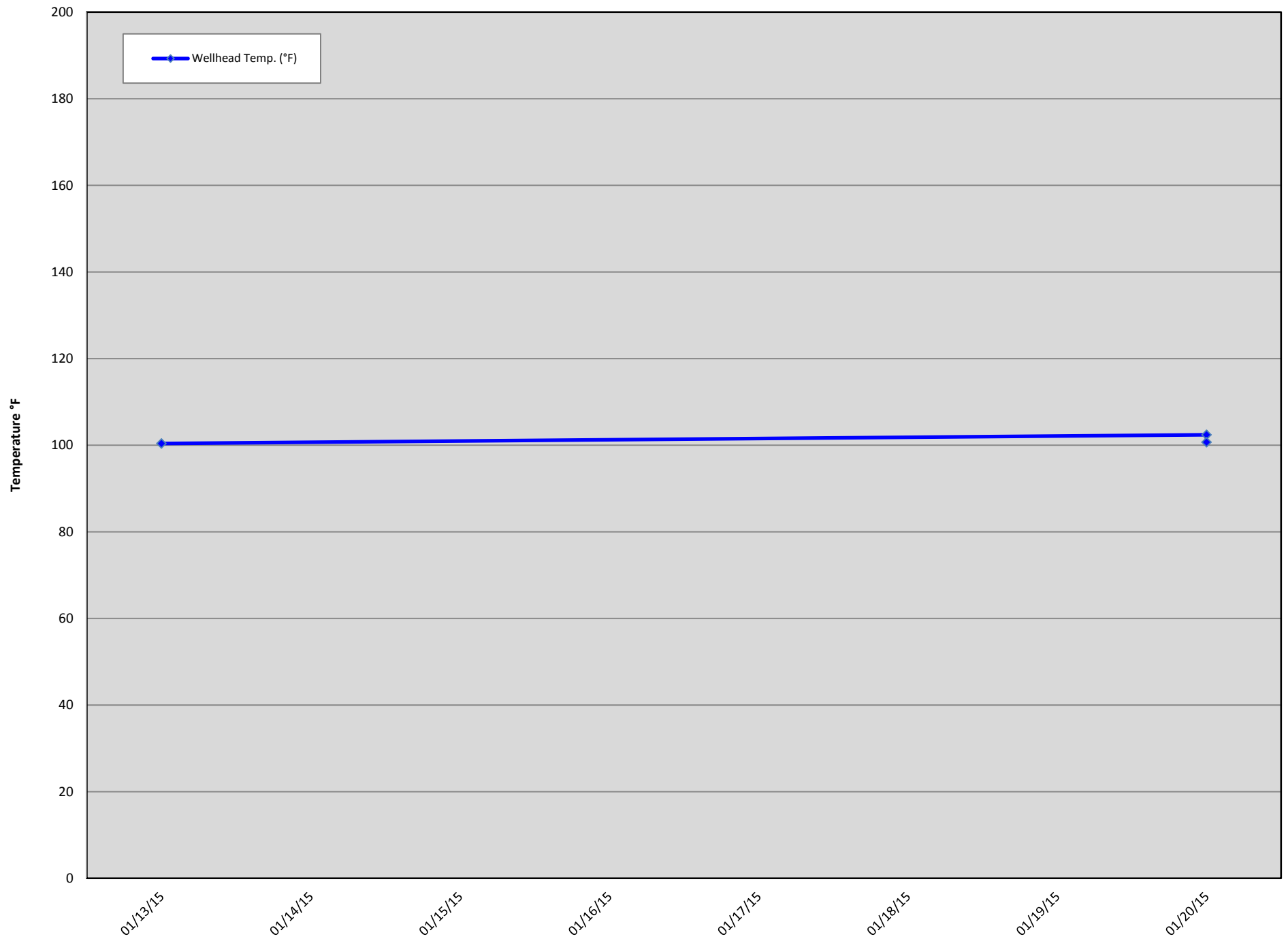
GEW-046R Wellhead Temperature



GEW-047R Wellhead Temperature



GEW-048 Wellhead Temperature



GEW-049 Wellhead Temperature

