

February 26, 2018  
File: PU17212B

Mr. Kevin Kirkman  
Mr. Ron Beasley  
Sundance South, LLC  
594 SE Bishop Boulevard, Suite 102  
Pullman, Washington 99163

RE: **Final Summary Letter**  
Wallowa Street Block 2, Lots 1–18  
Sundance South Subdivision  
Pullman, WA 99163

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Good Day, Kevin and Ron.

GeoProfessional Innovation Corporation (GPI) provides this Final Summary Letter for Wallowa Street Block 2, Lots 1–18 in the Sundance South Subdivision located on the south side of Pullman, Washington. This letter summarizes our services from project commencement in October 2017, through project completion in November 2018. During this time, our construction material testing (CMT) services were coordinated with Western Construction (Western) and Germer Construction (Germer), the earthwork contractors. Our services were provided, when requested, on either a continuous or periodic basis referencing the following:

- ☞ *Geotechnical Evaluation for Infrastructure* (GEI) performed by GPI, dated June 29, 2017.
- ☞ As defined in our CMT proposal (Proposal No. PUP17128), dated May 18, 2017.
- ☞ As outlined in our *Scope Addendum*, dated October 12, 2018 and our subsequent discussions with you.
- ☞ City of Pullman Standards.
- ☞ Sundance South Parametrix plan sheets dated December 2016 and cut/fill tick sheets provided by Parametrix on October 17, 2018.

GPI's authorized scope of services included:

- |  |   |
|--|---|
| ☞ Geotechnical Consultation                                    | ☞ Hot-mixed Asphalt Testing for the Roadway |
| ☞ Earthwork density testing and observation                    | ☞ Construction Material Laboratory Testing  |
| ☞ Concrete Observation and Testing for the sidewalks and curbs |   |

During construction activities and our site visits, field staff generated daily field reports (DFR's) to document their observations, tests results, and the construction status. Preliminary copies of these reports were electronically distributed on the day of the site visit. Subsequent final reports were transmitted weekly with laboratory test results to you, the City of Pullman, and the project team. Please note that during each site visit, testing typically occurred in multiple locations across the development. Therefore, recognize that individual daily field reports contain documentation addressing multiple areas of the entire project site, not specifically associated with Wallowa Street or its individual lots.

## **Mass Grading Density Testing and Observation**

Mass grading was initiated by Western while utility and subsurface drain construction was initiated by Germer. Mass grading began with topsoil stripping in October 2017, followed by subgrade preparation. Western initially struggled with structural fill placement and compaction over the exposed subgrade due to over optimum moisture contents, typical of native soil in the Palouse. We assisted them in properly preparing and compacting subgrades to meet geotechnical subgrade requirements. Once subgrades were correctly prepared, Western began placing and compacting structural fill. GPI obtained multiple fill material samples for Proctor testing as the fill material varied throughout the site.

Due to the site's naturally sloping surface, cuts in the native soil and fill placement were necessary to meet the design grades. Civil design by Parametrix established lot grades with some graded entirely on native soil cuts, some entirely on structural fill embankments, and some a combination of each with varying depths of structural fill and native soil cut. Specific to Wallowa Street (Block 2), the civil design plans delineate:

- ✘ Lots 1-7, 10, and 15-17 are constructed on both cut and fill ranging from 14-feet of cut to 9-feet of fill,
- ✘ Lots 8 and 9 are constructed on 1- to 13-feet of fill constructed over native soil, and
- ✘ Lots 11-14, and 18 are constructed on 2- to 19-feet of native cut soil.

Density test results were compared to Modified Proctor (ASTM D1557) maximum dry density and optimum moisture content for the soil used as structural fill. We conducted density testing on structural fill lifts and, based on the information provided by the contractors, recorded our test locations and relative elevations. Additionally, we provided occasional geotechnical consultation for subgrade preparation throughout construction to assist Western and Germer in meeting the project's geotechnical design and City of Pullman standards. As documented in the appended reports, structural fill for embankments was periodically tested and observed by GPI staff. Where initial tests did not meet compaction requirements, subsequent rework and moisture conditioning advanced, and GPI's retests documented that fill was placed and compacted to meet City of Pullman standards, and conforms to the requirements outlined in the GEI. To the best of our knowledge, we are unaware of any outstanding failed density tests in the locations and depths tested.

Subsurface drains were installed in the site's natural draws located in the western half of the subdivision between Lots 16 and 17. These drains are intended to facilitate subgrade drainage and long-term embankment performance. These drains were installed through consultation between GPI, Germer, and KIP Development (KIP) based on the GPI's geotechnical design recommendations and the conditions encountered during earthwork. The drains were installed following site stripping and during site grading and prior to embankment construction. It is critical for embankment performance that these drains be maintained intact and functional through subsequent individual lot construction.

## **Utility Trench Backfill and Roadway Testing**

Following mass grading, Germer began installing utility trenches throughout the project. We sampled imported  $\frac{5}{8}$ -inch-minus crushed gravel, which was used as bedding and backfill, and performed Modified Proctor testing on utility trench backfill materials above bedding. GPI provided a geoprofessional for periodic observation and density testing during utility backfill operations. We conducted density testing on the backfill lifts. Some initial density tests did not meet compaction

requirements and were reported to Germer. Germer re-worked each failed test area and GPI retested the failed areas. To the best of our knowledge, we are unaware of any outstanding failed density tests along utilities or roadways in the locations tested.

### **Hot Mix Asphalt (HMA) Testing and Curb Construction**

During HMA paving operations, GPI provided a geoprofessional to conduct observation and testing. We checked HMA for in place density using a nuclear densometer. We assisted Motley-Motley, Inc. (Motley), the asphalt subcontractor, with establishing effective rolling patterns to achieve minimum density requirements. We sampled loose HMA and transported it to our laboratory for gradation and oil content testing. In the areas tested we observed that HMA appeared to be properly mixed, referencing the submitted mix design and the City of Pullman standards, and the minimum density was achieved. To the best of our knowledge, there are no outstanding deficiencies regarding HMA paving in the locations tested.

### **Summary**

This final letter is intended to summarize the major aspects of our CMT services associated with infrastructure construction along Wallowa Street. This summary does not describe the entirety of our scope and the details of our observations are not reproduced herein. These observations were previously transmitted to the project team and City of Pullman in weekly transmittals since project commencement and are included in the attached appendix. See the final construction in Photograph 1, below.



**Photograph 1: Wallowa Street**

GPI accomplished observation and testing services for various infrastructure construction applications authorized by you. To the best of our knowledge, in the locations tested, these construction aspects meet the project specifications. It is important for lot owners and their contractors to recognize that the City of Pullman will likely require compaction testing and verification of City Standards (95% of Modified Proctor) in foundation locations for lots bearing on fill or a combination of cut and fill. Due to varying

moisture contents, our experience has been that moisture conditioning and additional compaction effort is often required to achieve these standards in previously constructed embankments.

Individual lot developments must contemplate their planned construction and seek the appropriate design and testing levels to suit individual budgets and risk tolerance. Specifically, the position of structures as they relate to fill depth and drainage provisions have proven 2 of the most common attributes to foundation, slab, and wall performance. It should also be understood and communicated to future homeowners that they are responsible to direct irrigation away from slopes to reduce their risks increasing slope instability. Additionally, future seeps may develop and increase slope instability under saturated conditions. Therefore, slopes should be vegetated as soon as possible and monitored for maintenance.

We appreciate the continued opportunities to provide these services for your development and we look forward to any upcoming projects. If we can be of further assistance in clarifying the appended documentation, please do not hesitate to contact GPI.

Sincerely,  
GPI



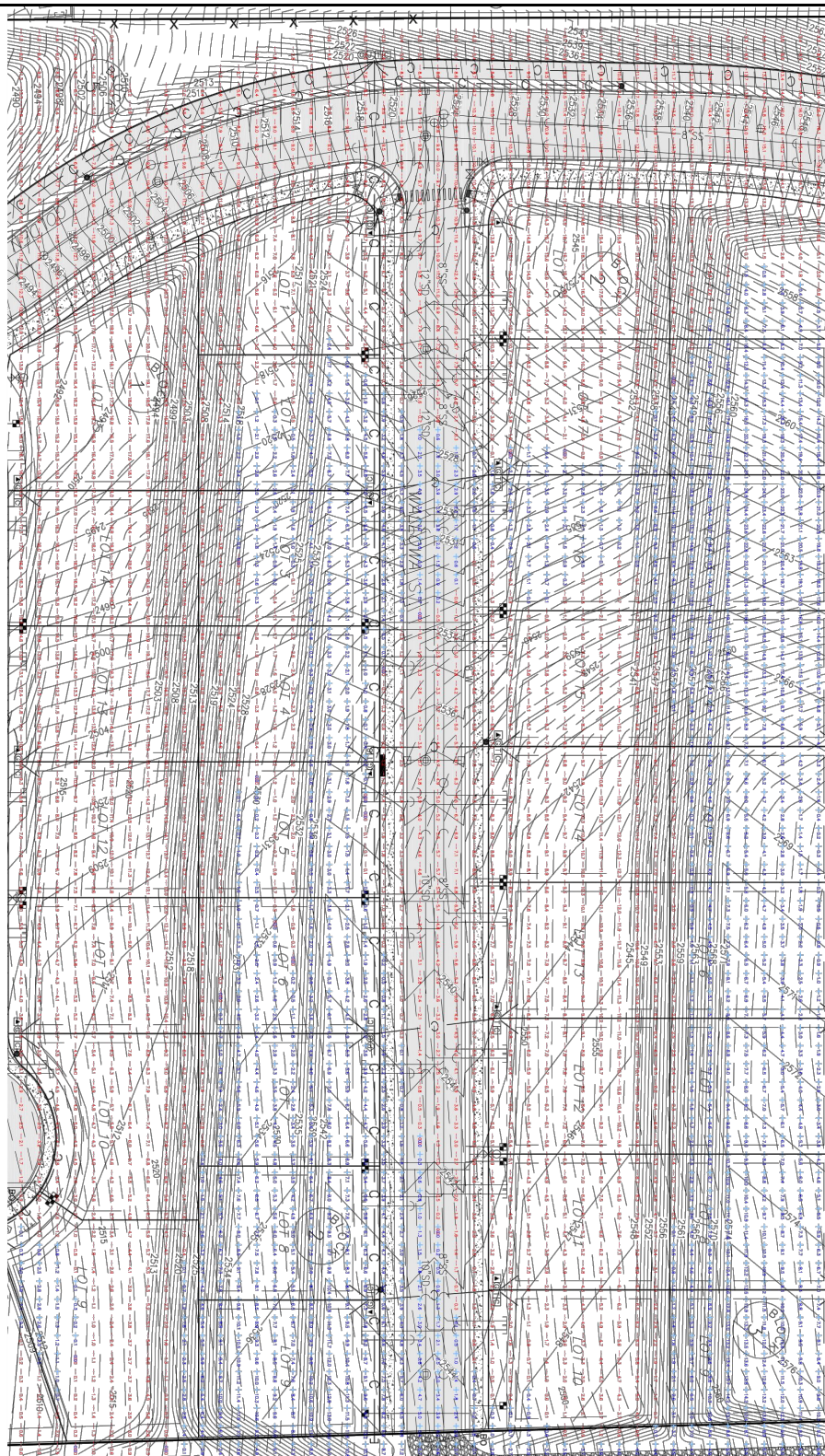
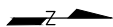
Travis J. Wambeke, P.E.  
Principal Engineer

Attachments: Plate 1: Cut/Fill Map  
CMT Documentation Reports and Laboratory Test Results

TJW/ac



**+** Fill  
**-** Cut



CUT/FILL MAP  
Wallowa Street Block 2, Lot 1-18  
Sundance South Subdivision  
Pullman, Washington



NOT TO SCALE

PU17212B

DRAWN BY: AJR

PLATE: 1

CHECKED BY: TJW

**Pullman**

6 O'Donnell Road  
Pullman, WA 99163  
Phone: 509.339.2000  
Fax: 509.339.2001

**Client:**

KIP Development  
594 SE Bishop Boulevard, Suite 102  
Pullman, WA 99163

**Project:**

PU17212B  
Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

**Activity Details****GeoProfessional:** ABRAMS, ANDY**Weather:** Overcast**Activity Date:** 10/27/2017**Engineer - Project - Site Visit****Activity Hours:** 2.0**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:** Subgrade observation**Reported To:**

Kevin Holmes (Western Construction) and Dave Germer (Germer Construction)

**Narrative:**

I arrived at the project site as requested by Dave Germer with Germer Construction (Western) and Kevin Holmes with Western Construction to observe and document topsoil stripping operations as well as subsurface drainage trench construction as outlined in the project geotechnical report. GPI GeoProfessional, John Persell, was also on site with me to observe and document conditions and interact with the contractors. At the time I arrived on site, Kevin with Western reported his topsoil stripping operation is currently in progress and is not yet complete. Kevin requested that GPI return to the site later in the day to observe topsoil stripping after it is complete. I also discussed with Kevin the geotechnical report requirements regarding subgrade preparation, which outline the minimum 90% compaction referencing ASTM D1557 at the subgrade prior to embankment fill placement. Kevin said he may be ready for subgrade testing this afternoon and would let GPI know during our afternoon visit today.

Also while on site, I interacted with Dave Germer regarding subsurface drainage trench construction as outlined on Plate 2 in GPI's geotechnical deliverable. Germer Construction's crew was at the time I was on site initiating drainage trench construction at the very uphill side of the site by accomplishing an approximate 18-inch wide, 2-foot deep trench with a mini excavator. Shawn with Germer Construction then reported the plan for trench construction will be to line the trench with geotextile fabric, place the fabric wrapped perforated pipe in the base of the trench, and backfill it with drain rock then wrap the top "burrito style". I reported to Shawn that this should meet the geotextile design intent outlined on Plate 2. Parametrix was on site staking the drainage trench alignment, which did not necessarily align with the lowest point in the natural draw existing on site, but was placed there to avoid traversing directly across any given residential lot. As outlined on Plate 2 in GPI's deliverable, drainage trench alignment was intended to traverse in between lot lines. I coordinated with both Kevin and Dave for GPI's visit by John Persell later this afternoon.

**Activity Details****GeoProfessional:** MAFFEY, JUSTIN**Weather:** Clear**Activity Date:** 05/08/2018**GeoProfessional - Density Testing****Activity Hours:** 2.0**Field Equipment****Equipment:** Yes**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:**

Between Waha Court and Wallowa Street

**Reported To:** Kevin Holmes (Western Construction)

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Pullman, WA 99163  
Phone: 509.339.2000  
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# GeoProfessional Report

**Client:**  
KIP Development  
594 SE Bishop Boulevard, Suite 102  
Pullman, WA 99163

**Project:**  
PU17212B  
Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

## Narrative:

I arrived on site as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of brown silt being placed as embankment fill for the Sundance South Development. Areas tested included fill areas along the draw between Waha Ct. and Wallowa St. as well as the northeast section between the same roadways. The current fill surface ranged from approximately 2.5 to 11.5 feet below subgrade (BSG) as reported by Mr. Holmes. Material was placed prior to my arrival and was compacted with a quad-drum sheep's foot roller with several passes across the areas.

Densities measured with the nuclear densometer in the locations tested ranged from approximately 107.0 pcf to 109.3 pcf and 18.4 to 21.4 percent moisture corresponding to 95 and 97 percent of the maximum dry density per ASTM D1557; see *In Place Density* sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense and interlocking condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

## Activity Details

**GeoProfessional:** CRESSLER, LUCAS

**Weather:** Clear

**Activity Date:** 05/25/2018

**GeoProfessional - Density Testing**

**Activity Hours:** 1.5

**Ref. Plans/Specs:** GPI GEE

**Plans Date:** 06/29/2017

**General Location:**  
Between Waha Court and Wallowa Street

**Reported To:** Kevin Holmes(western Construction)

## Narrative:

I arrived on site as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of brown silt being placed as embankment fill for the Sundance South Development. Areas tested included fill areas along the draw between Waha Court and Cayuse Street as well as just south of Cayuse Street. The current fill surface ranged from approximately 2.0 to 14.0 feet below subgrade (BSG) as reported by Mr. Holmes. Material was placed in approximate 1-foot thick lifts and was compacted with a quad-drum sheep's foot roller and fully loaded CAT earth scrapers.

Densities measured with the nuclear densometer corresponded to 95 and 99 percent of the maximum dry density per ASTM D1557; see *In Place Density* sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense and interlocking condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

## Activity Details

**GeoProfessional:** CRESSLER, LUCAS

**Weather:** Overcast

**Activity Date:** 05/29/2018

**GeoProfessional - Density Testing**

**Activity Hours:** 1.5

**Ref. Plans/Specs:** GPI GEE

**Plans Date:** 06/29/2017

**General Location:**  
Between Waha Court and Wallowa Street

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594 SE Bishop Boulevard, Suite 102  
Pullman, WA 99163

**Project:**

PU17212B  
Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

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**Reported To:** Kevin Holmes (Western Construction)**Narrative:**

I arrived on site as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of brown silt being placed as embankment fill for the Sundance South Development. Areas tested included fill areas along the draw between Waha Court and Cayuse Street as well as just south of Cayuse Street. The current fill surface ranged from approximately 2.0 to 14.0 feet below subgrade (BSG) as reported by Mr. Holmes. Material was placed in approximate 1-foot thick lifts and was compacted with a quad-drum sheep's foot roller and fully loaded CAT earth scrapers.

Densities measured with the nuclear densometer corresponded to 95 and 99 percent of the maximum dry density per ASTM D1557; see *In Place Density* sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense and interlocking condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

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**Activity Details****GeoProfessional:** MAFFEY, JUSTIN**Weather:** Clear**Activity Date:** 05/30/2018**GeoProfessional - Density Testing****Activity Hours:** 5.0

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**Field Equipment****Equipment:** Yes

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**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:**

Between Waha Court and Wallowa Street

**Reported To:** Kevin Holmes (Western Construction)**Narrative:**

I arrived on site as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of brown silt being placed as embankment fill for the Sundance South Development. Areas tested included fill areas along the draw between Waha Court and Cayuse Street as well as just south of Cayuse St. The current fill surface ranged from approximately 2 to 14.0 feet below subgrade (BSG) as reported by Mr. Holmes. Material was placed in approximate 1-foot thick lifts and was compacted with a quad-drum sheep's foot roller and fully loaded CAT earth scrapers.

Densities measured with the nuclear densometer in the locations tested ranged from approximately 107.0 pcf to 112.1 pcf and 9.8 to 21.4 percent moisture corresponding to 95 and 99 percent of the maximum dry density per ASTM D1557; see *In Place Density* sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense and interlocking condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

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**Activity Details****GeoProfessional:** CRESSLER, LUCAS**Weather:** Clear**Activity Date:** 05/31/2018



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Pullman, WA 99163

**Project:**

PU17212B  
Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

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**GeoProfessional - Density Testing****Activity Hours: 1.5**

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**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:**

Between Waha Court and Wallowa Street

**Reported To:** Kevin Holmes (Western Construction)**Narrative:**

I arrived on site as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of brown silt being placed as embankment fill for the Sundance South Development. Areas tested included fill areas along the draw between Waha Court and Cayuse Street as well as just south of Cayuse Street. The current fill surface ranged from approximately 2.0 to 18.0 feet below subgrade (BSG) as reported by Mr. Holmes. Material was placed in approximate 1-foot thick lifts and was compacted with a quad-drum sheep's foot roller and fully loaded CAT earth scrapers.

Densities measured with the nuclear densometer corresponded to 95 and 99 percent of the maximum dry density per ASTM D1557; see In Place Density sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense and interlocking condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

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**Activity Details**

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**GeoProfessional:** CRESSLER, LUCAS**Weather:** Clear**Activity Date:** 06/05/2018**GeoProfessional - Density Testing****Activity Hours: 4.5**

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**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:**

Between Cayuse Street and Wallowa Street

**Reported To:** Kevin Holmes (Western Construction)**Narrative:**

I arrived on site on three different occasions as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of brown silt being placed as embankment fill for the Sundance South Development. Areas tested included fill areas between Waha Court and Cayuse Street as well as on the far south end of the site. The current fill surface ranged from approximately 2.0 to 10.0 feet below subgrade (BSG) as reported by Mr. Holmes. Material was placed in approximate 1-foot thick lifts and was compacted with a quad-drum sheep's foot roller and fully loaded CAT earth scrapers.

Densities measured with the nuclear densometer in the locations tested ranged from approximately 107.1 pcf to 114.1 pcf and 11.8 to 21.1 percent moisture corresponding to 95 and 100 percent of the maximum dry density per ASTM D1557; see In Place Density sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense and interlocking condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. Kevin and I discussed the possibility of performing a new proctor test on the soil being excavated due to concerns voiced by Kevin of the material being different. I documented my results and reported to Mr. Holmes prior to departing the site.

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**Activity Details**

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**Project:**

PU17212B  
Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

**GeoProfessional:** MAFFEY, JUSTIN**Weather:** Clear**Activity Date:** 06/07/2018**GeoProfessional - Density Testing****Activity Hours:** 2.5**Field Equipment****Equipment:** Yes**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:**

Between Cayuse Street and Wallowa Street, south  
of Umatilla Court

**Reported To:** Kevin Holmes (Western Construction)**Narrative:**

I arrived on site as requested by Kevin Holmes with Western Construction to accomplish nuclear density testing of light brown silt being placed as embankment fill for the planned residential development. Fill areas tested today included between Cayuse Street and Wallowa Court between Wallowa Street and Umatilla Court, south of Umatilla Court, and along the construction access road on the east side of the site. All areas mentioned above reported passing test results, except an area along the construction access road between Wallowa Street and Umatilla Court. This area was too moist and did not meet compaction requirements. I informed Kevin of the situation and GPI will re-test this area the following day. The current fill surfaces ranged from 1 to 9 feet below subgrade as reported by Mr. Holmes. Material was placed in an approximate 1-foot thick lift and was compacted with a quad-drum sheep's foot roller and CAT 631 earth scrapers.

Densities measured with the nuclear densometer in the locations tested ranged from approximately 106.9 to 108.7 pcf and 14.4 to 20.1 percent moisture corresponding to 95 and 96 percent of the maximum dry density per ASTM D1557; see *In Place Density* sheet for details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 06/29/2017. Material was compacted to a stiff and unyielding condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

**Activity Details****GeoProfessional:** WAMBEKE, TRAVIS**Weather:** Clear**Activity Date:** 06/08/2018**Principal - Site Visit****Activity Hours:** 1.5**Ref. Plans/Specs:** GPI GEE**General Location:** Subgrade review**Reported To:** Kevin Holmes (Western Construction)**Narrative:**



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I arrived on site with Justin Maffey from our office and we reviewed wet spots that Kevin reported near the southwestern corner of the project development. At the time of our site visit, we traversed the area with Kevin noting that water was emanating from the slope in a fairly high volume that pooled in the area being sub excavated for eventual drilling and blasting. This water appears to emanate at the slope face near the cut transition. In reviewing the site geometry, it also appeared evident that approximately 100 feet upslope, or north, the prescribed trench drain fill had been stopped near it's design intersection with the eventual storm sewer system to be installed. However, the storm system will not be installed for several months. There was enough surface water being expressed that slope instability is a potential and Kevin reported significant difficulty in obtaining compaction immediately above this area. We visually observed pumping and rutting in the area Kevin described.

It is probable that water in the subgrade trench drain is mounded at its termination point and has enough head behind it that it is being forced down gradient through the soil matrix creating water pressures before eventually daylighting on the slope. These characteristics are problematic for both constructability and long-term performance. My recommendation is that the area be sub excavated and allowed to daylight such that the water can freely flow. This sub excavation will probably measure several hundred cubic yards 4 to 6-feet deep and will need to be backfilled with the drilled and blasted shot rock generated immediately below or an alternative source. Alternatively, the trench drain could be located and extended down along the lot lines to the next downgradient stormwater connection or to the pond. At any rate, my recommendation is this work advance as early as next week to allow construction to proactively continue and to reduce the hazard of instability both short and long term. This lot or 2 will not be suitable for eventual development without implementing some remedy.

**Discrepancy Description:** Water daylighting from the slope face.

## Uploaded Files



**Pullman**

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**Project:**

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Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163



## Activity Details

**GeoProfessional:** CRESSLER, LUCAS

**Weather:** Clear

**Activity Date:** 06/12/2018

**GeoProfessional - Density Testing**

**Activity Hours:** 4.5

**Ref. Plans/Specs:** GPI GEE

**General Location:**

Wallowa Street, Cayuse Street, Waha Court, and  
south of Wallowa Street

**Reported To:** Kevin Holmes (Western Construction)

**Narrative:**

I arrived on site on three different occasions as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of brown silt being placed as embankment fill for the Sundance South Development. Areas tested included fill areas on Waha Court, Cayuse Street, Wallowa Street, and south of Wallowa Street as well as on the far south end of the site. Material was placed in approximate 1-foot thick lifts and was compacted with a quad-drum sheep's foot roller and fully loaded CAT earth scrapers.

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Densities measured with the nuclear densometer corresponded to 95 and 100 percent of the maximum dry density per ASTM D1557; see In Place Density sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense and interlocking condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

**Activity Details****GeoProfessional:** CRESSLER, LUCAS**Weather:** Clear**Activity Date:** 06/13/2018**GeoProfessional - Density Testing****Activity Hours:** 5.5**Ref. Plans/Specs:** GPI GEE**General Location:**

Wallowa Street, Cayuse Street, and Waha Court

**Reported To:** Kevin Holmes (Western Construction)**Narrative:**

I arrived on site on three different occasions as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of brown silt being placed as embankment fill for the Sundance South Development. Areas tested included fill areas on Waha Court, Cayuse Street and Wallowa Street. Material was placed in approximate 1-foot thick lifts and was compacted with a quad-drum sheep's foot roller and fully loaded CAT earth scrapers.

Densities measured with the nuclear densometer corresponded to 95 and 98 percent of the maximum dry density per ASTM D1557; see In Place Density sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense and interlocking condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Holmes prior to departing the site.

**Activity Details****GeoProfessional:** PERSELL, JOHN**Weather:** Clear**Activity Date:** 06/15/2018**GeoProfessional - Density Testing****Activity Hours:** 4.5**Field Equipment****Density Gauge:** Yes**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:**

Cayuse Street, Umatilla Court, Wallowa Street

**Reported To:** Kevin Holmes (Western Construction)



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Pullman, WA 99163

**Project:**

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Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

**Narrative:**

I arrived on site three different times today as requested by Kevin Holmes with Western Construction (Western) to accomplish nuclear density testing of a silty clay being used as structural fill on Cayuse Court, Umatilla Court, and Wallowa Street. Upon arrival I observed that the structural fill had been compacted using a sheepsfoot roller and scrapers. Compaction of the structural fill had taken place before my arrival although the structural fill appeared to be compacted to a firm, and unyielding surface. Little to no pumping was observed under construction equipment travelling across the site. I performed multiple density tests here, which achieved the minimum 95% of ASTM D1557 using the modified Proctor.

Additionally, approximately 75% of the lift on Umatilla street was too coarse for testing. I gathered a sample of the material and took it back to the lab for testing and compaction was observed. A sheepsfoot roller and scraper made several passes across the lift. The lift of structural fill appeared compacted to a dense, interlocking, and unyielding position with little to no pumping observed under compaction equipment. I documented my results and reported to Kevin with Western before departing site.

**Activity Details****GeoProfessional:** WAMBEKE, TRAVIS**Weather:** Overcast**Activity Date:** 06/21/2018**Principal - Site Visit****Activity Hours:** 1.0**Ref. Plans/Specs:** GPI GEE**General Location:** Wet areas**Reported To:** Britton Bell (GPI)**Narrative:**

I arrived on site and traversed the project site, focusing on the wet areas previously encountered and engaged with Ron and Kevin. Kevin Holmes with Western Construction was not on site, however Western appeared to be dressing side slopes and constructing rough grades in areas noting the pending wet weather. The wet areas had not substantially diminished since my last visit. However, the basalt had yet to be blasted. The thought is that once the basalt is blasted, it may relieve some of the drainage concerns and these wet spring expressions on the constructed slopes will be reevaluated. Blasting appears to be in preparation and will likely occur in the next day or two based on what I observed. Britton was on site to perform testing and was being directed by Western on where to facilitate those tests.

**Activity Details****GeoProfessional:** BELL, BRITTON**Weather:** Rain/Snow**Activity Date:** 06/21/2018**GeoProfessional - Job Cancellation****Activity Hours:** 1.5**Ref. Plans/Specs:** GPI**General Location:** None**Reported To:** Kevin (Western Construction)**Narrative:** I was on call to arrive at the Sundance Street South site for 1.5 hours until my scheduled time was canceled.**Activity Details**

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# GeoProfessional Report

**Client:**  
KIP Development  
594 SE Bishop Boulevard, Suite 102  
Pullman, WA 99163

**Project:**  
PU17212B  
Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

**GeoProfessional:** ABRAMS, ANDY

**Weather:** Clear

**Activity Date:** 07/03/2018

**Engineer - Project - Site Visit**

**Activity Hours:** 2.0

**Ref. Plans/Specs:** GPI GEE

**Plans Date:** 06/29/2017

**General Location:** Density Testing

**Reported To:** Kevin Holmes (Western Construction)

## Narrative:

I arrived at the project site to perform density testing on clay mined from on site being placed as embankment fill in the very eastern corners of the residential lot locations at the eastern extents of the project site. On the southernmost fill bench and next bench to the north is the placement location for today. The locations I tested varied from approximately 10 feet below finish grade to 1 foot below finish grade, as reported by Tyler with Western Construction based on the GPS unit attached to the bulldozer on site. Fill was placed in approximate 12-inch thick lift and compacted via multiple passes of a sheep's foot roller to a stiff, unyielding condition which did not exhibit pumping or rutting beneath compaction equipment. In the locations I tested, compaction exceeded the required 95% referencing ASTM D1557. Tyler and Kevin reported to me that they planned to blast additional bedrock at 1pm today and will resume placing coarse shotrock as structural fill. See GPI GeoProfessional, John Persell's, fill report for this additional observation for today's construction activities.

## Activity Details

**GeoProfessional:** BELL, BRITTON

**Weather:** Clear

**Activity Date:** 07/12/2018

**GeoProfessional - Density Testing**

**Activity Hours:** 3.0

**Ref. Plans/Specs:** GPI GEE

**Plans Date:** 06/29/2017

**General Location:** Middle Tier

**Reported To:** Sean Hammond (Germer Construction)

## Narrative:

I arrived on site as requested by Sean Hammond of Germer Construction to accomplish nuclear density testing of subgrade being placed as structural fill. Fill material was placed in approximate 1-foot thick lifts from approximately 4-feet below grade to 2 feet below grade and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 107.3 to 116.5 pcf and 12.3 to 17.3 percent moisture corresponding from 95 to 103 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Sean Hammond prior to departing the site.

## Activity Details

**GeoProfessional:** BELL, BRITTON

**Weather:** Clear

**Activity Date:** 07/13/2018

**GeoProfessional - Density Testing**

**Activity Hours:** 4.0

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**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:** Middle Tier**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site as requested by Sean Hammond of Germer Construction to accomplish nuclear density testing of aggregate being placed as structural fill. Fill material was placed in approximate 1-foot thick lifts from approximately 2-feet below grade to grade feet below grade and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 114.1 to 133.5 pcf and 12.3 to 17.3 percent moisture corresponding from 90 to 99 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. Failing tests (Less than 95% compaction) were retested following additional compaction efforts until tests met the minimum compaction requirements outlined in the GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Shawn Hammond prior to departing the site.

**Activity Details****GeoProfessional:** BELL, BRITTON**Weather:** Clear**Activity Date:** 07/16/2018**GeoProfessional - Density Testing****Activity Hours:** 6.0**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:** Middle Tier and Waha Court**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site as requested by Sean Hammond of Germer Construction to accomplish nuclear density testing of backfill being placed for a storm drain line. Fill material was placed in approximate 1-foot thick lifts from approximately 2-feet below grade to grade feet below grade and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 107.1 to 114.1 pcf and 11.2 to 16.4 percent moisture corresponding from 95 to 97 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Shawn Hammond prior to departing the site.

**Activity Details****GeoProfessional:** BELL, BRITTON**Weather:** Clear**Activity Date:** 07/17/2018**GeoProfessional - Density Testing****Activity Hours:** 6.0**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:** Middle Tier and Waha Court



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**Project:**

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**Reported To:** Sean Hammond (Germer Construction)

**Narrative:**

I arrived on site as requested by Sean Hammond of Germer Construction to accomplish nuclear density testing of backfill being placed for a storm drain line along Waha Court. Fill material was placed in approximate 1-foot thick lifts from approximately 2-feet below grade to grade feet below grade and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 107.4 to 107.6 pcf and 11.5 to 17.5 percent moisture corresponding from 95 to 96 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Shawn Hammond prior to departing the site.

**Activity Details**

**GeoProfessional:** BELL, BRITTON

**Weather:** Clear

**Activity Date:** 07/18/2018

**GeoProfessional - Density Testing**

**Activity Hours:** 6.0

**Ref. Plans/Specs:** GPI GEE

**Plans Date:** 06/29/2017

**General Location:** Middle Tier and Waha Court

**Reported To:** Sean Hammond (Germer Construction)

**Narrative:**

I arrived on site as requested by Sean Hammond of Germer Construction to accomplish nuclear density testing of backfill being placed for a storm drain line along Waha Court. Fill material was placed in approximate 1-foot thick lifts from approximately 4-feet below grade to grade feet below grade and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 107.0 to 110.8 pcf and 11.3 to 17.5 percent moisture corresponding from 95 to 98 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Shawn Hammond prior to departing the site.

**Activity Details**

**GeoProfessional:** BELL, BRITTON

**Weather:** Clear

**Activity Date:** 07/19/2018

**GeoProfessional - Density Testing**

**Activity Hours:** 6.0

**Ref. Plans/Specs:**

City of Pullman Standards and GPI GEE

**Plans Date:** 06/29/2017

**General Location:** Middle Tier and Waha Court

**Reported To:** Sean Hammond (Western Construction)

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Sundance South Subdivision  
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**Narrative:**

I arrived on site as requested by Sean Hammond of Western Construction to accomplish nuclear density testing of backfill being placed for a storm drain line. Fill material was placed in approximate 1-foot thick lifts from approximately 4-feet below grade to grade feet below grade and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 107.3 to 109.0 pcf and 13.0 to 15.8 percent moisture corresponding from 95 to 96 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the City of Pullman Standards and GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Shawn Hammond prior to departing the site.

**Activity Details****GeoProfessional:** BELL, BRITTON**Weather:** Clear**Activity Date:** 07/20/2018**GeoProfessional - Density Testing****Activity Hours:** 4.0**Ref. Plans/Specs:** City of Pullman Standards**Plans Date:** 06/29/2017**General Location:** Middle Tier and Waha Court**Reported To:** Sean Hammond (Western Construction)**Narrative:**

I arrived on site as requested by Sean Hammond of Western Construction to accomplish nuclear density testing of backfill being placed for a storm drain line. Fill material was placed in approximate 1-foot thick lifts from approximately 4-feet below grade to grade feet below grade and was compacted by a sheep's foot roller.

In-situ densities measured with the nuclear densometer in the aggregate locations tested ranged from approximately 132.3 to 136.0 pcf and 6.5 to 8.5 percent moisture corresponding from 95 to 97 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in the City of Pullman Standards and GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Shawn Hammond prior to departing the site.

**Activity Details****GeoProfessional:** KANNENBERG, JOSHUA**Weather:** Clear**Activity Date:** 07/23/2018**GeoProfessional - Density Testing****Activity Hours:** 4.0**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:**

Cayuse Street, Wallawa Street and Waha Court

**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of 5/8" gravel and

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reddish brown clay being placed as backfill for the storm drain lines running along Cayuse Street, Waha Court and Wallawa Street on site. Fill surfaces ranged from 1 to 3 feet above the pipe. Material was placed in approximate 1-foot thick lifts and was compacted with a utility trench roller (gravel) and sheep's foot roller (clay).

Densities measured with the nuclear densometer in the locations tested all achieved compaction of at least 95% of the maximum dry density per ASTM D1557; see *In Place Density* sheet for locations and details. In the locations tested, this appears to meet compaction requirements outlined in the GPI GEE dated 6/29/2017. Material was compacted to a dense/stiff and interlocking/unyielding condition and did not exhibit any significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Hammond prior to departing the site.

**Activity Details****GeoProfessional:** PAULSEN, ZACH**Weather:** Clear**Activity Date:** 07/27/2018**GeoProfessional - Density Testing****Activity Hours:** 5.0**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:**

Cayuse Street and Wallawa Street

**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site two times as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of backfill being placed for multiple utility trenches along Cayuse Street as well as the western most manhole Wallawa Street. The current fill surface was about 1 foot below finish base to .5 feet below finish base as reported by Sean. Fill material was placed in approximate 1-foot thick lifts from approximately 2-feet below finish base to 1 foot below finish base and was compacted vibratory sheep's foot trench roller, and a large single drum sheep's foot vibratory roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 117.3 to 144.6 pcf and 5.2 to 16.9 percent moisture corresponding to 95 and 98 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Sean prior to departing the site.

The final scheduled visit was cancelled by Sean Hammond do to unforeseen events and was scheduled to arrive on location the following morning.

**Activity Details****GeoProfessional:** PAULSEN, ZACH**Weather:** Clear**Activity Date:** 07/30/2018**GeoProfessional - Density Testing****Activity Hours:** 10.0**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:**

Cayuse Street and Wallawa Street

**Reported To:** Sean Hammond (Germer Construction)

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**Narrative:**

I arrived on site two times as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of backfill being placed for multiple utility trenches along Cayuse Street as well as the Storm drain trench on Wallowa Street. The current fill surface was about 5 feet below finish base to finish base as reported by Sean. Fill material was placed in approximate 1-foot thick lifts from approximately 8-feet below finish base to 6 feet below finish base and was compacted vibratory sheep's foot trench roller, and a large single drum sheep's foot vibratory roller and "jumping jack" wacker.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 121.8 to 148.7 pcf and 3.9 to 15.5 percent moisture corresponding to 95 and 100.7 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Sean prior to departing the site.

**Activity Details****GeoProfessional:** PAULSEN, ZACH**Weather:** Clear**Activity Date:** 07/31/2018**GeoProfessional - Density Testing****Activity Hours:** 6.0**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:** Wallowa Street**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site two times as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of backfill being placed for multiple utility trenches along Wallowa Street as well as the Storm drain trench on Wallowa Street. The current fill surface was about 5 feet below finish base to finish base as reported by Sean. Fill material was placed in approximate 1-foot thick lifts from approximately 6-feet below finish base to 5 feet below finish base and was compacted vibratory sheep's foot trench roller, and "jumping jack" wacker.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 139.3 to 148.6 pcf and 5.1 to 7.2 percent moisture corresponding to 95 and 99.7 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I did observe several lifts of clay in the storm water trench exhibit bridging behavior yielding less than ideal results. This was reported to site foreman and the material was removed and re-rolled. Density testing will continue tomorrow morning at the request of Germer.

I documented my results and reported to Sean prior to departing the site.

**Activity Details****GeoProfessional:** PAULSEN, ZACH**Weather:** Clear**Activity Date:** 08/01/2018**GeoProfessional - Density Testing****Activity Hours:** 4.5**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:** Wallowa Street

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**Reported To:** Sean Hammond (Germer Construction)

**Narrative:**

I arrived on site two times as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of backfill being placed for multiple utility trenches along Wallowa Street as well as the Storm drain trench on Wallowa Street. The current fill surface was about 5 feet below finish base to finish base as reported by Sean. Fill material was placed in approximate 1-foot thick lifts from approximately 6-feet below finish base to 5 feet below finish base and was compacted vibratory sheep's foot trench roller, and "jumping jack" wacker.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 123.6 to 148.8 pcf and 6.0 to 12.5 percent moisture corresponding to 95 and 99.8 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I did observe several lifts of clay in the storm water trench exhibit bridging behavior yielding less than ideal results. This was reported to site foreman and the material was removed and re-rolled. Density testing will continue tomorrow morning at the request of Germer.

I documented my results and reported to Sean prior to departing the site.

**Activity Details**

**GeoProfessional:** HENDERSON, RICK

**Weather:** Clear

**Activity Date:** 08/02/2018

**Project Manager - Site Visit**

**Activity Hours:** 1.5

**Ref. Plans/Specs:** GPI GEE

**Plans Date:** 06/29/2017

**General Location:** Wallowa Street

**Reported To:** Sean Hammond (Germer Construction)

**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to assist with an acceptable method for compaction. Sean said he has been struggling with the on-site material to achieve 95% compaction. When I arrived, I had Zack Paulsen with GPI assist. We located several areas that Sean reported as difficult areas. I observed the lift thickness to be approximately 6-inches in these areas. When we tested, we obtained values of 88 to 93% compaction initially. In one area we were able to obtain 95% compaction after using a smooth shovel to prepare the surface. The other areas were above the optimum moisture, at 19 to 20% moisture. We were unable to develop a method to achieve compaction. I asked Sean to rip it, let it dry, then re-compact it to narrow down if the moisture was a factor.

I documented my results and reported to Sean prior to departing the site.

**Activity Details**

**GeoProfessional:** PAULSEN, ZACH

**Weather:** Clear

**Activity Date:** 08/02/2018

**GeoProfessional - Density Testing**

**Activity Hours:** 8.5

**Ref. Plans/Specs:** GPI GEE

**Plans Date:** 06/29/2017

**General Location:** Wallowa Street

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**Reported To:** Sean Hammond (Germer Construction)

**Narrative:**

I arrived on site two times as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of backfill being placed for multiple utility trenches along Wallowa Street as well as the Storm drain trench on Wallowa Street. The current fill surface was about 5 feet below finish base to 3 below finish base as reported by Sean. Fill material was placed in approximate 6 inch thick lifts from approximately 6-feet below finish base to 3 feet below finish base and was compacted vibratory sheep's foot trench roller, and "jumping jack" wacker.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 119.7 to 141.7 pcf and 3.8 to 16.4 percent moisture corresponding to 95 and 97 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

**Activity Details**

**GeoProfessional:** PAULSEN, ZACH

**Weather:** Clear

**Activity Date:** 08/03/2018

**GeoProfessional - Density Testing**

**Activity Hours:** 8.5

**Ref. Plans/Specs:** GPI GEE

**Plans Date:** 06/29/2017

**General Location:** Wallowa Street

**Reported To:** Sean Hammond (Germer Construction)

**Narrative:**

I arrived on site two times as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of backfill being placed for multiple utility trenches along Wallowa Street as well as the storm drain trench on Wallowa Street. The current fill surface was about 5 feet below finish base to 3 below finish base as reported by Sean. Fill material was placed in approximate 6 inch thick lifts from approximately 6-feet below finish base to 3 feet below finish base and was compacted vibratory sheep's foot trench roller, and "jumping jack" wacker.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 115.5 to 142.8 pcf and 5.5 to 15.8 percent moisture corresponding to 95 and 102.9 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

**Activity Details**

**GeoProfessional:** PAULSEN, ZACH

**Weather:** Clear

**Activity Date:** 08/06/2018

**GeoProfessional - Density Testing**

**Activity Hours:** 7.0



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**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:** Wallowa Street**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site three times as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of backfill being placed for multiple utility trenches along Wallowa Street as well as the storm drain trench on Wallowa Street. The current fill surface was about 5 feet below finish base to 3 below finish base as reported by Sean. Fill material was placed in approximate 6 inch thick lifts from approximately 6-feet below finish base to 3 feet below finish base and was compacted vibratory sheep's foot trench roller, and "jumping jack" wacker.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 121.0 to 147.2 pcf and 6.6 to 15.7 percent moisture corresponding to 95 and 97.5 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

**Activity Details****GeoProfessional:** PAULSEN, ZACH**Weather:** Clear**Activity Date:** 08/07/2018**GeoProfessional - Density Testing****Activity Hours:** 1.5**Ref. Plans/Specs:** GPI GEE**General Location:** Wallowa Street**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of backfill being placed for multiple utility trenches along Wallowa Street as well as the storm drain trench on Wallowa Street. The current fill surface was about 7 feet below finish base to 6.5 feet below finish base as reported by Sean. Fill material was placed in approximate 6 inch thick lifts from approximately 8-feet below finish base to 6 feet below finish base and was compacted "jumping jack" wacker.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 142.0 to 142.2 pcf and 5.0 to 6.9 percent moisture corresponding to 95 and 96.7 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

**Activity Details****GeoProfessional:** PAULSEN, ZACH**Weather:** Clear**Activity Date:** 08/08/2018**GeoProfessional - Density Testing****Activity Hours:** 3.5

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**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:** Wallowa Street**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of backfill being placed for multiple utility trenches along the west side of Wallowa Street. The current fill surface was about 8 feet below finish base to 6.5 feet below finish base as reported by Sean. Fill material was placed in approximate 1 foot thick lifts from approximately 8-feet below finish base to 6 feet below finish base and was compacted with a vibrating sheeps foot trench roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 151.2 pcf and 6.4 percent moisture corresponding to 101.5 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

There are several other utility trenches prepared but have yet to be rolled. Once rolled personnel will be called to location for further testing.

I documented my results and reported to Sean prior to departing the site.

**Activity Details****GeoProfessional:** PAULSEN, ZACH**Weather:** Clear**Activity Date:** 08/09/2018**GeoProfessional - Density Testing****Activity Hours:** 5.0**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:** Wallowa Street**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of backfill being placed for multiple utility trenches along the west side and east side of Wallowa Street. The current fill surface was about 8.0 feet below finish base to 6.5 feet below finish base as reported by Sean. Fill material was placed in approximate 1 foot thick lifts from approximately 8-feet below finish base to 6 feet below finish base and was compacted with a vibrating sheeps foot trench roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 139.3 to 147.1 pcf and 5.1 to 7.1 percent moisture corresponding to 95 to 99.6 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

**Activity Details****GeoProfessional:** PAULSEN, ZACH**Weather:** Clear**Activity Date:** 08/10/2018

**Pullman**

6 O'Donnell Road  
Pullman, WA 99163  
Phone: 509.339.2000  
Fax: 509.339.2001

**Client:**

KIP Development  
594 SE Bishop Boulevard, Suite 102  
Pullman, WA 99163

**Project:**

PU17212B  
Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

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**GeoProfessional - Density Testing****Activity Hours: 2.0**

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**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:** Wallowa Street**Reported To:** Sean Hammond with Germer**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of backfill being placed for multiple utility trenches along the west side and east side of Wallowa Street. The current fill surface was about 8.0 feet below finish base to 6.5 feet below finish base as reported by Sean. Fill material was placed in approximate 1 foot thick lifts from approximately 8-feet below finish base to 6 feet below finish base and was compacted with a vibrating sheeps foot trench roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 140.4 to 151.7 pcf and 4.3 to 8.0 percent moisture corresponding to 96.9 to 100.9 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

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**Activity Details**

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**GeoProfessional:** PAULSEN, ZACH**Weather:** Clear**Activity Date:** 08/11/2018**GeoProfessional - Overtime - Density Testing****Activity Hours: 7.0**

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**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:** Wallowa Street**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of backfill being placed for fill on Umatilla Street. The current fill surface was about 8 feet below finish base to 4 feet below finish base as reported by Sean. Fill material was placed in approximate 1 foot thick lifts from approximately 8-feet below finish base to 4 feet below finish base and was compacted with a large single drum vibrating sheeps foot.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 124.6 to 129.6 pcf and 14.0 to 17.7 percent moisture corresponding to 95 to 98.9 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

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**Activity Details**

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**GeoProfessional:** PAULSEN, ZACH**Weather:** Clear**Activity Date:** 08/13/2018

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**Pullman**

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**Project:**

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Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

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**GeoProfessional - Overtime - Density Testing****Activity Hours: 5.5**

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**Ref. Plans/Specs:** GPI GEE**General Location:**

Wallowa Street and Umatilla Street

**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of reddish brown clay and 5/8" minus crushed gravel being placed for fill on Umatilla Street and Wallowa Street trench and utilities. The current fill surface was about 6 feet below finish base to 4 feet below finish base as reported by Sean. Fill material was placed in approximate 1 foot thick lifts from approximately 8-feet below finish base to 4 feet below finish base and was compacted with a large single drum vibrating sheeps foot.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 120.9 to 144.5 pcf and 5.6 to 17.5 percent moisture corresponding to 95 to 100 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

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**Activity Details**

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**GeoProfessional:** PAULSEN, ZACH**Weather:** Clear**Activity Date:** 08/14/2018**GeoProfessional - Overtime - Density Testing****Activity Hours: 6.5**

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**Ref. Plans/Specs:** GPI GEE**General Location:**

Wallowa Street and Umatilla Street

**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of reddish brown clay and 5/8" minus crushed gravel being placed for fill on Umatilla Street and Wallowa Street trench and utilities. The current fill surface was about 6 feet below finish base to 4 feet below finish base as reported by Sean. Fill material was placed in approximate 1 foot thick lifts from approximately 5-feet below finish base to 3 feet below finish base and was compacted with a large single drum vibrating sheeps foot.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 122.5 to 131.6 pcf and 13.0 to 18.4 percent moisture corresponding to 95 to 99.7 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

---

**Activity Details**

---

**Pullman**

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Pullman, WA 99163

**Project:**

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Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

**GeoProfessional:** PAULSEN, ZACH**Weather:** Clear**Activity Date:** 08/15/2018**GeoProfessional - Overtime - Density Testing****Activity Hours:** 9.0**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:**

Wallowa Street and Golden Hills Drive

**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of reddish brown clay and 5/8" minus crushed gravel being placed for fill on Wallowa Street trench and utilities as well as Golden Hills Drive's storm drain trench. The current fill surface was about 7 feet below finish base to 4 feet below finish base on Golden Hills Dr and 6 feet to 2.5 feet below finish base on Wallowa Street as reported by Sean. Fill material was placed in approximate 1 to 2 foot thick lifts from approximately 5-feet below finish base to 3 feet below finish base and was compacted with a large single drum vibrating sheeps foot as well as a sheep's foot trench roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 125.5 to 148.0 pcf wet density and 5.5 to 18.0 percent moisture corresponding to 95 to 100.9 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

**Activity Details****GeoProfessional:** WAMBEKE, TRAVIS**Weather:** Clear**Activity Date:** 08/15/2018**Engineer - Principal - Site Visit****Activity Hours:** 1.5**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:** Construction progress**Reported To:** Shawn (Germer Construction)**Narrative:**

I arrived on site and reviewed the construction activities which were between 80 and 90% complete with subsurface utility construction along Wallowa Street. I was keenly interested in the water now ponding at the intersection of Golden Hills Drive and Wallowa Street. This water had not been present previously, or at least since my last site visit. Shawn with Germer reported the majority of the trenches were moist but not wet. At this sanitary sewer located in Golden Hills Drive where Germer was initiating the northbound connection, water pooled to a depth of approximately 18 inches in the manhole. The excavation immediately north of the manhole was moist but did not show signs of free moisture. I concluded that water must be penetrating the trench and following the coarse trench backfill, accumulating in the manhole. Although proximate to the ponding occurring immediately northeast of the intersection of Wallowa Street and Golden Hills Drive, seepage was not evident in the excavation sidewalls.

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I traversed the 3 to 4 lots on the southside of Wallowa trending east from Golden Hills Drive. These are located immediately above the seepage exposed in the cut slope below. This seepage remains a concern and has not resolved itself from the blasting that occurred at the development entrance. Lateral drains had not extended over the hillside to collect and pull this water down. It is important to evaluate how to control this water. The source of it generally is upgradient and at it's surface expression appears to be mounded above the basalt bedrock. However, the source of the water will not be cutoff or controlled. Rather, we simply need to seek avenues to collect the water so it is not a nuisance or pose a landsliding hazard on these lots. I have contacted Ron and Kevin to further evaluate their desires in pursuing this resolution.

## Activity Details

**GeoProfessional:** PAULSEN, ZACH

**Weather:** Clear

**Activity Date:** 08/16/2018

**GeoProfessional - Overtime - Density Testing**

**Activity Hours:** 8.0

**Ref. Plans/Specs:** GPI GEE

**Plans Date:** 06/29/2017

**General Location:**

Wallowa Street and Golden Hills Drive

**Reported To:** Sean Hammond (Germer Construction)

**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of reddish brown clay and 5/8" minus crushed gravel being placed for fill on Wallowa st trench and utilities as well as Golden Hills Drive's storm drain trench. The current fill surface was about 5 feet below finish base to 4 feet below finish base on Golden Hills Dr and 5 feet to 0.5 feet below finish base on Wallowa St as reported by Sean. Fill material was placed in approximate 1 to 2 foot thick lifts from approximately 5-feet below finish road subgrade to a half foot below finish road subgrade and was compacted with a large single drum vibrating sheep's foot as well as a sheep's foot trench roller on the Golden Hills Dr storm drain trench.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 121.5 to 144.3 pcf wet density and 2.9 to 17.2 percent moisture corresponding to 95 to 101.9 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I also observed water in the bottom of the storm drain trench going north from Wallowa Street to Cayuse Street. Germer employees were using a pump to displace water as it came.

I documented my results and reported to Sean prior to departing the site.

## Uploaded Files





**Upload Description:**  
15' north of Wallowa St. on Golden Hills Dr.



**Upload Description:**  
5' north of Wallowa St. on Golden Hills Dr.

**Pullman**

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Pullman, WA 99163

**Project:**

PU17212B  
Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

**GeoProfessional:** PAULSEN, ZACH**Weather:** Clear**Activity Date:** 08/17/2018**GeoProfessional - Overtime - Density Testing****Activity Hours:** 4.5**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:**

Wallowa Street and Golden Hills Drive

**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of reddish brown clay and 5/8" minus crushed gravel being placed for fill on Wallowa Street trench and utilities as well as Golden Hills Drive's storm drain trench. The current fill surface was about 6 feet below finish road subgrade to 4 feet below finish road subgrade on Golden Hills Dr and 3 feet to 0.5 feet below finish road subgrade on Wallowa Street as reported by Sean. Fill material was placed in approximate 1 to 2 foot thick lifts from approximately 5-feet below finish road subgrade to a half foot below finish road subgrade and was compacted with a large single drum vibrating sheep's foot as well as a sheep's foot trench roller on the Golden Hills Dr storm drain trench.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 121.9 to 143.9 pcf wet density and 6.3 to 14.5 percent moisture corresponding to 95 to 100.9 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

**Activity Details****GeoProfessional:** PAULSEN, ZACH**Weather:** Clear**Activity Date:** 08/20/2018**GeoProfessional - Overtime - Density Testing****Activity Hours:** 6.5**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:**

Wallowa Street, Umatilla Street, and Golden Hills Drive

**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of reddish brown clay and 5/8" minus crushed gravel being placed for fill on Wallowa Street trench and utilities as well as Golden Hills Drive's storm drain trench. The current fill surface was about 4 feet below finish road subgrade to 2 feet below finish road subgrade on Golden Hills Drive and 2.5 feet to 0.5 feet below finish road subgrade on Wallowa Street as reported by Sean. Fill material was placed in approximate 1 to 2 foot thick lifts from approximately 4-feet below finish road subgrade to a half foot below finish road subgrade and was compacted with a large single drum vibrating sheep's foot as well as a sheep's foot trench roller on the Golden Hills Drive storm drain trench.

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Pullman, WA 99163

**Project:**

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Sundance South Subdivision  
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Pullman, WA 99163

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 120.3 to 145.8 pcf wet density and 6.4 to 16.7 percent moisture corresponding to 95 to 100 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

## Activity Details

**GeoProfessional:** PAULSEN, ZACH

**Weather:** Clear

**Activity Date:** 08/21/2018

**GeoProfessional - Overtime - Density Testing**

**Activity Hours:** 8.0

**Ref. Plans/Specs:** GPI GEE

**Plans Date:** 06/29/2017

**General Location:**

Wallowa Street and Golden Hills Drive

**Reported To:** Sean Hammond (Germer Construction)

**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of reddish brown clay and 5/8" minus crushed gravel being placed for fill on Wallowa Street trench and utilities as well as Golden Hills Drive's storm drain trench. The current fill surface was about 4 feet below finish road subgrade to 2 feet below finish road subgrade on Golden Hills Drive and 7 feet to 6 feet below finish road subgrade on Wallowa Street as reported by Sean. Fill material was placed in approximate 1 to 2 foot thick lifts from approximately 7-feet below finish road subgrade to a half foot below finish road subgrade and was compacted with a large single drum vibrating sheep's foot as well as a sheep's foot trench roller on the Golden Hills Drive storm drain trench.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 123.3 to 147.3 pcf wet density and 5.8 to 18.1 percent moisture corresponding to 95 to 100 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

## Activity Details

**GeoProfessional:** PAULSEN, ZACH

**Weather:** Clear

**Activity Date:** 08/22/2018

**GeoProfessional - Overtime - Density Testing**

**Activity Hours:** 7.5

**Ref. Plans/Specs:** GPI GEE

**Plans Date:** 06/29/2017

**General Location:**

Wallowa Street and Golden Hills Drive

**Reported To:** Sean Hammond (Germer Construction)

**Narrative:**



**Pullman**

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**Client:**

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Pullman, WA 99163

**Project:**

PU17212B  
Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of reddish brown clay and 5/8" minus crushed gravel being placed for fill on Wallowa Street utility trenches as well as Golden Hills Drive's storm drain trench. The current fill surface was about 3 feet below finish road subgrade to 2 feet below finish road subgrade on Golden Hills Drive and 2.5 feet to at finish road subgrade on Wallowa Street as reported by Sean. Fill material was placed in approximate 1 to 2 foot thick lifts from approximately 3 finish road subgrade to a half foot below finish road subgrade and was compacted with a large single drum vibrating sheep's foot as well as a sheep's foot trench roller on the storm drain access points along Wallowa Street.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 122.3 to 148.0 pcf wet density and 6.3 to 17.3 percent moisture corresponding to 95 to 100 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I also observed water in the bottom of the storm drain trench going north from Wallowa Street to Golden Hills Drive. Germer employees were using a pump to displace water as it came.

I documented my results and reported to Sean prior to departing the site.

## Uploaded Files



**Upload Description:**

Ground water run collecting in storm drain trench at Wallowa Street and Golden Hills Drive

## Activity Details

**GeoProfessional:** PAULSEN, ZACH

**Weather:** Clear

**Activity Date:** 08/23/2018

**GeoProfessional - Overtime - Density Testing**

**Activity Hours:** 5.0

**Pullman**

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**Project:**

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Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:**

Wallowa Street and Golden Hills Drive

**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of reddish brown clay and 5/8" minus crushed gravel being placed for fill on Wallowa Street utility trenches as well as Golden Hills Drive's storm drain trench. The current fill surface was about 7 feet below finish road subgrade to .5 feet below finish road subgrade on Golden Hills Drive and 2 feet to at finish road subgrade on Wallowa Street as reported by Sean. Fill material was placed in approximate 1 to 2 foot thick lifts from approximately 7 feet below finish road subgrade to a half foot below finish road subgrade and was compacted with a large single drum vibrating sheep's foot as well as a sheep's foot trench roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 109.1 to 137.3 pcf dry density and 5.9 to 14.2 percent moisture corresponding to 95 to 99 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

**Activity Details****GeoProfessional:** PAULSEN, ZACH**Weather:** Clear**Activity Date:** 08/24/2018**GeoProfessional - Overtime - Density Testing****Activity Hours:** 4.5**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:**Golden Hills Drive sanitation trench between  
Wallowa and Cayuse Street**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of reddish brown clay and 5/8" minus crushed gravel being placed for fill on Golden Hills Drive's sanitation trench. The current fill surface was about 3 feet below finish road subgrade to 2 feet below finish road subgrade as reported by Sean. Fill material was placed in approximate 1 foot thick lifts from approximately 4 feet below finish road subgrade to a 5 feet below finish road subgrade and was compacted with a vibrating sheep's foot trench roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 132.6 to 139.7 pcf dry density and 6.2 to 8.1 percent moisture corresponding to 95 to 100 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

**Activity Details**



**Pullman**

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Pullman, WA 99163

**Project:**

PU17212B  
Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

**GeoProfessional:** PAULSEN, ZACH**Weather:** Clear**Activity Date:** 09/10/2018**GeoProfessional - Overtime - Density Testing****Activity Hours:** 5.5**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:**

Golden Hills Drive sanitation trench, waterline, and  
waterline tie in

**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of gravel being placed for waterline and sanitation trenching being placed on Golden Hills Drive. The current fill surface was about 5.5 to finish road subgrade. Fill material was placed prior to my arrival and was compacted with a J tamper and vibrating sheeps foot trench roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 132.4 to 139.7 pcf dry density and 3.6 to 7.5 percent moisture corresponding to 95 and 100 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

## Activity Details

**GeoProfessional:** PAULSEN, ZACH**Weather:** Clear**Activity Date:** 09/11/2018**GeoProfessional - Overtime - Density Testing****Activity Hours:** 3.5**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:**

Golden Hills Drive. sanitation trench, waterline and  
waterline tie in

**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of gravel being placed for waterline trenching being placed on Golden Hills Drive. The current fill surface was about 1 to 2 feet below finish road subgrade. Fill material was placed prior to my arrival and was compacted with a J tamper and vibrating sheeps foot trench roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 133.4 to 134.6 pcf dry density and 4.8 to 5.3 percent moisture corresponding to 95 and 96 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

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# GeoProfessional Report

**Client:**  
KIP Development  
594 SE Bishop Boulevard, Suite 102  
Pullman, WA 99163

**Project:**  
PU17212B  
Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

## Activity Details

**GeoProfessional:** PAULSEN, ZACH

**Weather:** Clear

**Activity Date:** 09/12/2018

**GeoProfessional - Overtime - Density Testing**

**Activity Hours:** 1.5

**Ref. Plans/Specs:** GPI GEE

**Plans Date:** 06/29/2017

**General Location:** Work canceled

**Reported To:** Sean Hammond (Germer Construction)

### Narrative:

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing. No testing was done do to no new lifts being placed. Waterlines are being installed on Cayuse Street. and Wallowa Street. Further testing will be needed tomorrow morning.

## Activity Details

**GeoProfessional:** PAULSEN, ZACH

**Weather:** Clear

**Activity Date:** 09/13/2018

**GeoProfessional - Overtime - Density Testing**

**Activity Hours:** 1.5

**Ref. Plans/Specs:** GPI GEE

**Plans Date:** 06/29/2017

**General Location:** Work canceled

**Reported To:** Sean Hammond (Germer Construction)

### Narrative:

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing. No testing was done do to no new lifts being placed. Waterlines are being installed on Cayuse Street and Wallowa Street. Further testing will be needed tomorrow morning.

## Activity Details

**GeoProfessional:** PAULSEN, ZACH

**Weather:** Clear

**Activity Date:** 09/14/2018

**GeoProfessional - Overtime - Density Testing**

**Activity Hours:** 4.5

**Ref. Plans/Specs:** GPI GEE

**Plans Date:** 06/29/2017

**General Location:**  
Wallowa and Waha Street waterline trench

**Reported To:** Sean Hammond (Germer Construction)

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# GeoProfessional Report

**Client:**

KIP Development  
594 SE Bishop Boulevard, Suite 102  
Pullman, WA 99163

**Project:**

PU17212B  
Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

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**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of gravel being placed for waterline trenches installed on Wallowa and Waha Stret. The current fill surface was about 1.5 to 3 feet below finish road subgrade. Fill material was placed prior to my arrival and was compacted with a J tamper and vibrating sheep's foot trench roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 132.7 to 147.1 pcf dry density and 3.8 to 8.6 percent moisture corresponding to 95 and 105 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

---

**Pullman**

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Pullman, WA 99163  
Phone: 509.339.2000  
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**Client:**

KIP Development  
594 SE Bishop Boulevard, Suite 102  
Pullman, WA 99163

**Project:**

PU17212B  
Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

**Activity Details****GeoProfessional:** PAULSEN, ZACH**Weather:** Clear**Activity Date:** 09/20/2018**GeoProfessional - Density Testing****Activity Hours:** 2.5**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:**

Wallowa Street, Cayuse Street, Golden Hills Drive,  
Umatilla Court and Waha Street. waterline trench

**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of gravel being placed for waterline trenches installed on Wallowa Street, Cayuse Street, Golden Hills Drive, Umatilla Court, and Waha Street waterline trench. The current fill surface was about 0.5 to 2 feet below finish road subgrade. Fill material was placed prior to my arrival and was compacted with a J tamper and vibrating sheep's foot trench roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 132.5 to 136.8 pcf dry density and 3.7 to 8.0 percent moisture corresponding to 95 and 98 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean prior to departing the site.

**Activity Details****GeoProfessional:** WAMBEKE, TRAVIS**Weather:** Clear**Activity Date:** 09/24/2018**Engineer - Principal - Site Visit****Activity Hours:** 1.0**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:** Construction progress**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site to review the construction progress since my last site visit. Roadway subgrades had been achieved with the exception of isolated utility backfill areas. In my traverse throughout the project site, no soft or unstable areas were visually evident. A haul truck was proof compacting in a couple of roadway areas noting no significant deflection or rutting. Sean noted that he had initiated his waterline pressure test. Once that passes, the City will take over and install laterals and Germer will advance curb and sidewalk grades. Sean estimated that would occur in the next 2 weeks. Once sidewalk and curb is established, paving will occur relatively quickly thereafter.

No modifications to the slopes along Umatilla Street where continuous seepage has been observed throughout the project's duration. I reminded Sean to construct the underdrains that I understood Kevin and Ron had approved prior to completing curb and sidewalk. Additionally, it is important that I witness these underdrains and the conditions exposed during their construction.

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**Project:**

PU17212B  
Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

## Activity Details

**GeoProfessional:** PAULSEN, ZACH**Weather:** Clear**Activity Date:** 10/22/2018**GeoProfessional - Short Notice - Density Testing****Activity Hours:** 3.5**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:**

Golden Hills Drive eastern curbside

**Reported To:** Sean Hammond (Germer Construction)**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of gravel being placed as structural fill for the eastern curbs on Golden Hills Dr. The current fill surface was at finished road subgrade as reported by Sean. Fill material was placed in approximate 5-inch thick lifts from approximately 0.5-feet below road subgrade and was compacted by a large vibrating smooth drum roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 134.7 to 139.5 pcf dry density and 2.7 to 4.4 percent moisture corresponding to 95 and 98 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean Hammond prior to departing the site.

## Activity Details

**GeoProfessional:** PAULSEN, ZACH**Weather:** Overcast**Activity Date:** 10/30/2018**GeoProfessional - Density Testing****Activity Hours:** 2.5**Ref. Plans/Specs:** Strata GEE**Plans Date:** 06/29/2017**General Location:** Wallowa Street**Reported To:** Sean Hammond with Germer Construction**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of gravel being placed as structural fill for the road base course on Wallowa Street. The current fill surface was about at finish grade as reported by Sean. Fill material was placed in approximate 0.5-foot thick lifts prior to my arrival and was compacted by a large vibrating single drum roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 134.2 to 136.4 pcf dry density and 2.2 to 3.3 percent moisture corresponding to 95 and 96 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in Strata GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I documented my results and reported to Sean Hammond with Germer Construction prior to departing the site.



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# GeoProfessional Report

**Client:**  
KIP Development  
594 SE Bishop Boulevard, Suite 102  
Pullman, WA 99163

**Project:**  
PU17212B  
Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

## Activity Details

**GeoProfessional:** PAULSEN, ZACH

**Weather:** Overcast

**Activity Date:** 10/31/2018

**GeoProfessional - Density Testing**

**Activity Hours:** 4.0

**Ref. Plans/Specs:** GPI GEE

**Plans Date:** 06/29/2017

**General Location:**

Wallowa Street, Waha Court, Cayuse Street, and  
Golden Hills Drive

**Reported To:** Mr. Sean Hammond with Germer Construction

### Narrative:

I arrived on site as requested by Mr. Sean Hammond with Germer Construction to accomplish nuclear density testing of gravel being placed as structural fill for the road subgrade. The current fill surface was about at finish road subgrade as reported by Mr. Hammond. Fill material was placed in approximate 6-inch thick lifts from approximately 0.5 to 1-foot below finish road subgrade and was compacted by a large single drum vibrating roller.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 132.3 to 145.2 pcf dry density and 4.8 to 7.6 percent moisture corresponding to 95 and 104 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Mr. Sean Hammond with Germer Construction prior to departing the site.

## Activity Details

**GeoProfessional:** PAULSEN, ZACH

**Weather:** Overcast

**Activity Date:** 11/02/2018

**GeoProfessional - Density Testing**

**Activity Hours:** 4.0

**Ref. Plans/Specs:** GPI GEE

**Plans Date:** 06/29/2017

**General Location:**

Golden Hills Drive, Umatilla Street, and Wallowa  
Street

**Reported To:** Sean Hammond with Germer Construction

**Reported To:** Lucas Sanders with Motley-Motley, Inc.

### Narrative:

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of gravel being placed as structural fill for the road subgrade. The current fill surface was about at final road subgrade as reported by Sean. Fill material was placed prior to my arrival and compacted with a large vibrating single drum roller.

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**Project:**

PU17212B  
Sundance South Subdivision  
Sundance Court  
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In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 132.4 to 137.6 pcf dry density and 4.6 to 7.2 percent moisture corresponding to 95 and 98 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment.

I arrived a second time at the request Lucas Sanders with Motley-Motley, Inc. to accomplish additional density testing. Upon arrival, no new material had been added to the completed roads. I spoke with Lucas and no further testing was needed.

I documented my results and reported to Sean Hammond with Germer Construction prior to departing the site.

**Activity Details****GeoProfessional:** PAULSEN, ZACH**Weather:** Overcast**Activity Date:** 11/07/2018**GeoProfessional - Asphalt Density Testing****Activity Hours:** 6.0**Ref. Plans/Specs:** City of Pullman Standards**General Location:**

Wallowa Street and Umatilla Street

**Reported To:** Sean Hammond with Germer Construction**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of hot mix asphalt (HMA) being placed along Wallowa and Umatilla Street. A theoretical maximum density (Rice) of 160.1 pcf was provided based on the 1/2-inch mix design. Approximately 500 tons of HMA were placed and compacted by Motley-Motley, Inc. (Motley). The roller pattern used to achieve compaction included a vibratory breakdown of 4 passes with a Dynapac CC1200 roller followed by 2 vibratory passes and 1 static pass with a CAT CB53 for the intermediate rolling, and finished with a couple static passes with the CAT roller. A total of 20 quality assurance tests were recorded, all achieving a minimum of 91% of the Rice value. This appears to meet compaction requirements outlined in the City of Pullman Standards.

I documented my results and reported to Colt with Motley prior to departing the site.

**Activity Details****GeoProfessional:** MAFFEY, JUSTIN**Weather:** Clear**Activity Date:** 11/08/2018**GeoProfessional - Job Cancellation****Activity Hours:** 1.5**Ref. Plans/Specs:** N/A**General Location:** Sundance South Development**Reported To:** Sean Hammond (Germer Construction, Inc.)**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction, Inc. (Germer) to accomplish nuclear density testing of the hot mix asphalt paving, yet paving was cancelled for the day. No notice was given to GPI so a job cancellation applies.

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# GeoProfessional Report

**Client:**  
KIP Development  
594 SE Bishop Boulevard, Suite 102  
Pullman, WA 99163

**Project:**  
PU17212B  
Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

## Activity Details

**GeoProfessional:** KANNENBERG, JOSHUA

**Weather:** Overcast

**Activity Date:** 11/09/2018

**GeoProfessional - Asphalt Density Testing**

**Activity Hours:** 5.5

**Ref. Plans/Specs:** City of Pullman Standards

**General Location:** Golden Hills Drive

**Reported To:** Sean Hammond (Germer Construction)

### Narrative:

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of hot mix asphalt (HMA) being placed along Golden Hills Drive and the approach to Golden Hills from Highway 27 at the south entrance to the project site. A theoretical maximum density (Rice) of 160.1 pcf was provided based on the 1/2-inch mix design. The HMA was placed and compacted by Motley-Motley, Inc. (Motley). The roller pattern used to achieve compaction included a vibratory breakdown of 4 passes with a Dynapac CC1200 roller followed by 2 vibratory passes and 1 static pass with a CAT CB24 for the intermediate rolling, and finished with a couple static passes with the CAT roller. A total of 16 quality assurance tests were recorded, all achieving a minimum of 91% of the Rice value. This appears to meet compaction requirements outlined in the City of Pullman Standards. I documented my results and reported to Sean with Germer and Colt with Motley prior to departing the site.

## Activity Details

**GeoProfessional:** PAULSEN, ZACH

**Weather:** Clear

**Activity Date:** 11/10/2018

**GeoProfessional - Overtime - Density Testing**

**Activity Hours:** 1.5

**Ref. Plans/Specs:** GPI GEE

**Plans Date:** 06/29/2017

**General Location:**  
Western approach of Golden Hills Drive

**Reported To:** Sean Hammond with Germer Construction

### Narrative:

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of gravel being placed as structural fill for the road subgrade. The current fill surface was about at finish road subgrade, as reported by Sean. Fill material was placed and compacted prior to my arrival.

In-situ densities measured with the nuclear densometer in the locations tested ranged from approximately 132.4 to 137.4 pcf dry density and 2.6 to 5.0 percent moisture corresponding to 95 and 98 percent of the maximum dry density per ASTM D1557; see In-Place Density Test Sheet for results and locations. In the locations tested, this appears to meet the minimum compaction requirements outlined in GPI's GEE. The material was compacted to a dense and interlocking condition and did not exhibit significant pumping, rutting, or deflections beneath compaction equipment. I documented my results and reported to Sean Hammond with Germer Construction prior to departing the site.

## Activity Details

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# GeoProfessional Report

**Client:**

KIP Development  
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Pullman, WA 99163

**Project:**

PU17212B  
Sundance South Subdivision  
Sundance Court  
Pullman, WA 99163

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**GeoProfessional:** PAULSEN, ZACH**Weather:** Clear**Activity Date:** 11/12/2018**GeoProfessional - Asphalt Density Testing****Activity Hours:** 5.5

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**Ref. Plans/Specs:** GPI GEE**Plans Date:** 06/29/2017**General Location:**

Golden Hills Drive western side of the road

**Reported To:** Sean Hammond with Germer Construction**Narrative:**

I arrived on site as requested by Sean Hammond with Germer Construction to accomplish nuclear density testing of hot mix asphalt (HMA) being placed along the western side of Golden Hills Drive. A theoretical maximum density (Rice) of 160.1 pcf wet density was provided based on the 1/2-inch mix design. Approximately 450 tons of HMA were placed and compacted by Motley-Motley, Inc. (Motley). The roller pattern used to achieve compaction included a vibratory breakdown of 4 passes with a Dynapac CC1200 roller followed by 2 vibratory passes and 1 static pass with a CAT CB53 for the intermediate rolling and finished with a couple static passes with the CAT roller. A total of 12 quality assurance tests were recorded, all achieving a minimum of 91% of the Rice value. This appears to meet compaction requirements outlined in the City of Pullman Standards.

I documented my results and reported to Colt with Motley prior to departing the site.

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Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
1		10/27/17	PUL17-0177	A	ML	13.5	114.5	11.7	96.3	8	84	90 / 103	DF/MF
2		10/27/17	PUL17-0177	A	ML	13.5	114.5	15.1	105.4	8	92	90 / 103	DP/MP
3		10/27/17	PUL17-0177	A	ML	13.5	114.5	12.5	104.1	8	91	90 / 103	DP/MP
4	1	10/27/17	PUL17-0177	A	ML	13.5	114.5	15.9	102.8	8	90	90 / 103	DP/MP
5		10/30/17	PUL17-0177	A	ML	13.5	114.5	13.6	113.0	8	99	95 / 103	DP
6		10/30/17	PUL17-0177	A	ML	13.5	114.5	15.2	108.4	8	95	95 / 103	DP
7		10/30/17	PUL17-0177	A	ML	13.5	114.5	14.8	109.2	8	95	95 / 103	DP
8		10/30/17	PUL17-0329	A	ML	16.0	113.0	19.2	102.6	8	91	90 / 103	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1	Fill - Subgrade: Fill								Troxler / 3430 / 37625 / 2/3/2017			PERSELL, JOHN	
2	Fill - Subgrade: Fill								Troxler / 3430 / 37625 / 2/3/2017			PERSELL, JOHN	
3	Fill - Subgrade: Fill								Troxler / 3430 / 37625 / 2/3/2017			PERSELL, JOHN	
4	Fill - Subgrade: Fill								Troxler / 3430 / 37625 / 2/3/2017			PERSELL, JOHN	
5	Fill - Subgrade: Fill al9ng draw between Waha Ct. and Cayuse St.						18.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
6	Fill - Subgrade: Fill al9ng draw between Waha Ct. and Cayuse St.						18.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
7	Fill - Subgrade: Fill al9ng draw between Waha Ct. and Cayuse St.						18.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
8	Fill - Subgrade: Fill al9ng draw between Waha Ct. and Cayuse St.						14.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
Remarks					Comments								
DF/MF: Density Fail / Moisture Fail					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP/MP: Density Pass / Moisture Pass													
DP: Density Pass													



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
9		10/30/17	PUL17-0329	A	ML	16.0	113.0	20.4	102.6	8	91	90 / 103	DP
10		10/30/17	PUL17-0329	A	ML	16.0	113.0	16.8	105.1	8	93	90 / 103	DP
11		10/30/17	PUL17-0329	A	ML	16.0	113.0	15.8	101.3	8	90	90 / 103	DP
12		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.8	107.6	8	95	95 / 103	DP
13		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.2	107.4	8	95	95 / 103	DP
14		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.5	107.1	8	95	95 / 103	DP
15		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.5	107.7	8	95	95 / 103	DP
16		10/31/17	PUL17-0329	A	ML	16.0	113.0	19.8	107.3	8	95	95 / 103	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
9	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						15.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
10	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						20.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
11	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						20.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
12	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						20.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
13	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						20.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
14	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						20.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
15	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						20.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
16	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						20.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
17		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.9	107.6	8	95	95 / 103	DP
18		10/31/17	PUL17-0329	A	ML	16.0	113.0	16.0	106.8	8	95	95 / 103	DP
19		10/31/17	PUL17-0329	A	ML	16.0	113.0	13.0	110.4	8	98	95 / 103	DP
20		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.1	107.5	8	95	95 / 103	DP
21		10/31/17	PUL17-0329	A	ML	16.0	113.0	19.2	107.7	8	95	95 / 103	DP
22		10/31/17	PUL17-0329	A	ML	16.0	113.0	15.6	108.9	8	96	95 / 103	DP
23		10/31/17	PUL17-0329	A	ML	16.0	113.0	19.0	107.4	8	95	95 / 103	DP
24		10/31/17	PUL17-0329	A	ML	16.0	113.0	16.4	107.7	8	95	95 / 103	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician
17	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						20.0	BSG		Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN
18	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.						3.0	BSG		Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN
19	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.						3.0	BSG		Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN
20	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.						5.0	BSG		Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN
21	Fill - Subgrade: Fill in NE corner of site. Along Waha Ct.						5.0	BSG		Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN
22	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						17.0	BSG		Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN
23	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						17.0	BSG		Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN
24	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						17.0	BSG		Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
25		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.0	108.3	8	96	95 / 103	DP
26		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.7	108.2	8	96	95 / 103	DP
27		10/31/17	PUL17-0329	A	ML	16.0	113.0	17.1	108.3	8	96	95 / 103	DP
28		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.7	107.0	8	95	95 / 103	DP
29		10/31/17	PUL17-0329	A	ML	16.0	113.0	15.3	109.1	8	97	95 / 103	DP
30		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.5	107.9	8	95	95 / 103	DP
31		10/31/17	PUL17-0329	A	ML	16.0	113.0	16.4	108.8	8	96	95 / 103	DP
32		10/31/17	PUL17-0329	A	ML	16.0	113.0	17.5	110.2	8	98	95 / 103	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
25	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						17.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
26	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						17.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
27	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						16.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
28	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						12.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
29	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						6.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
30	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						3.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
31	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						16.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
32	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						16.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

**Client:**

KIP Development  
 594 SE Bishop Boulevard, Suite 102  
 Pullman, WA 99163

**Project:**

PU17212B  
 Sundance South Subdivision  
 Sundance Court  
 Pullman, WA 99163

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
33		10/31/17	PUL17-0329	A	ML	16.0	113.0	19.1	107.4	8	95	95 / 103	DP
34		10/31/17	PUL17-0329	A	ML	16.0	113.0	16.9	106.9	8	95	95 / 103	DP
35		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.3	107.4	8	95	95 / 103	DP
36		10/31/17	PUL17-0329	A	ML	16.0	113.0	17.9	108.1	8	96	95 / 103	DP
37		10/31/17	PUL17-0329	A	ML	16.0	113.0	19.0	109.0	8	96	95 / 103	DP
38		10/31/17	PUL17-0329	A	ML	16.0	113.0	18.5	107.5	8	95	95 / 103	DP
39		10/31/17	PUL17-0329	A	ML	16.0	113.0	19.0	107.1	8	95	95 / 103	DP
40		11/1/17	PUL17-0329	A	ML	16.0	113.0	18.0	108.0	8	96	95 / 103	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
33	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						16.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
34	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						16.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
35	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						16.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
36	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.						3.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
37	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.						3.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
38	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.						3.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
39	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.						3.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
40	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.						2.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

**Client:**

KIP Development  
 594 SE Bishop Boulevard, Suite 102  
 Pullman, WA 99163

**Project:**

PU17212B  
 Sundance South Subdivision  
 Sundance Court  
 Pullman, WA 99163

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
41		11/1/17	PUL17-0329	A	ML	16.0	113.0	18.3	107.8	8	95	95 / 103	DP
42		11/1/17	PUL17-0329	A	ML	16.0	113.0	19.2	107.7	8	95	95 / 103	DP
43		11/1/17	PUL17-0329	A	ML	16.0	113.0	20.1	107.5	8	95	95 / 103	DP
44		11/1/17	PUL17-0329	A	ML	16.0	113.0	18.7	107.3	8	95	95 / 103	DP
45		11/1/17	PUL17-0329	A	ML	16.0	113.0	20.0	107.3	8	95	95 / 103	DP
46		11/1/17	PUL17-0329	A	ML	16.0	113.0	13.1	107.3	8	95	95 / 103	DP
47		11/1/17	PUL17-0329	A	ML	16.0	113.0	12.6	107.5	8	95	95 / 103	DP
48		11/1/17	PUL17-0329	A	ML	16.0	113.0	19.0	107.0	8	95	95 / 103	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
41	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.						2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
42	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.						2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
43	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						17.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
44	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						10.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
45	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						10.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
46	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						15.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
47	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						15.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
48	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						12.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
49		11/1/17	PUL17-0329	A	ML	16.0	113.0	18.1	107.3	8	95	95 / 103	DP
50		11/1/17	PUL17-0329	A	ML	16.0	113.0	17.2	107.4	8	95	95 / 103	DP
51		11/1/17	PUL17-0329	A	ML	16.0	113.0	16.2	108.9	8	96	95 / 103	DP
52		11/1/17	PUL17-0329	A	ML	16.0	113.0	13.8	107.3	8	95	95 / 103	DP
53		11/1/17	PUL17-0329	A	ML	16.0	113.0	18.3	108.8	8	96	95 / 103	DP
54		11/1/17	PUL17-0329	A	ML	16.0	113.0	16.2	107.0	8	95	95 / 103	DP
55		11/1/17	PUL17-0329	A	ML	16.0	113.0	14.8	107.5	8	95	95 / 103	DP
56		11/1/17	PUL17-0329	A	ML	16.0	113.0	18.0	109.9	8	97	95 / 103	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
49	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						9.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
50	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.						2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
51	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.						2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
52	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						15.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
53	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						15.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
54	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						15.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
55	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						8.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
56	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						12.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
57		11/1/17	PUL17-0329	A	ML	16.0	113.0	19.8	107.3	8	95	95 / 103	DP
58		11/1/17	PUL17-0329	A	ML	16.0	113.0	12.2	106.9	8	95	95 / 103	DP
59		11/1/17	PUL17-0329	A	ML	16.0	113.0	16.4	107.5	8	95	95 / 103	DP
60		11/1/17	PUL17-0329	A	ML	16.0	113.0	19.5	107.0	8	95	95 / 103	DP
61		11/1/17	PUL17-0329	A	ML	16.0	113.0	15.4	108.2	8	96	95 / 103	DP
62		11/1/17	PUL17-0329	A	ML	16.0	113.0	15.4	107.7	8	95	95 / 103	DP
63		11/1/17	PUL17-0329	A	ML	16.0	113.0	19.0	107.2	8	95	95 / 103	DP
64		11/1/17	PUL17-0329	A	ML	16.0	113.0	19.9	107.3	8	95	95 / 103	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician
57	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						12.0	BSG		Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN
58	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						10.0	BSG		Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN
59	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						12.0	BSG		Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN
60	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						11.0	BSG		Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN
61	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						10.0	BSG		Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN
62	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						10.0	BSG		Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN
63	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						10.0	BSG		Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN
64	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.						2.0	BSG		Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
65		11/1/17	PUL17-0329	A	ML	16.0	113.0	20.0	106.9	8	95	95 / 103	DP
66		11/1/17	PUL17-0329	A	ML	16.0	113.0	17.2	106.8	8	95	95 / 103	DP
67		11/1/17	PUL17-0329	A	ML	16.0	113.0	17.5	109.0	8	96	95 / 103	DP
68		11/1/17	PUL17-0329	A	ML	16.0	113.0	18.7	106.8	8	95	95 / 103	DP
69		11/1/17	PUL17-0329	A	ML	16.0	113.0	15.0	108.3	8	96	95 / 103	DP
70		11/1/17	PUL17-0329	A	ML	16.0	113.0	19.3	107.2	8	95	95 / 103	DP
71		11/1/17	PUL17-0329	A	ML	16.0	113.0	16.3	107.5	8	95	95 / 103	DP
72		11/1/17	PUL17-0329	A	ML	16.0	113.0	17.5	106.8	8	95	95 / 103	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
65	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.						2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
66	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.						2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
67	Fill - Subgrade: Fill in NE corner of site. North and east of Waha Ct.						2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
68	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						15.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
69	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						15.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
70	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						14.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
71	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						3.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
72	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						8.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
73		11/1/17	PUL17-0329	A	ML	16.0	113.0	14.1	108.4	8	96	95 / 103	DP
74		11/1/17	PUL17-0329	A	ML	16.0	113.0	19.8	107.3	8	95	95 / 103	DP
75		11/1/17	PUL17-0329	A	ML	16.0	113.0	17.6	106.8	8	95	95 / 103	DP
76		11/2/17	PUL17-0329	A	ML	16.0	113.0	18.7	107.1	8	95	95 / 103	DP
77		11/2/17	PUL17-0329	A	ML	16.0	113.0	18.3	108.2	8	96	95 / 103	DP
78		11/2/17	PUL17-0329	A	ML	16.0	113.0	18.0	108.1	8	96	95 / 103	DP
79		11/2/17	PUL17-0329	A	ML	16.0	113.0	17.7	108.7	8	96	95 / 103	DP
80		11/2/17	PUL17-0329	A	ML	16.0	113.0	13.8	106.9	8	95	95 / 103	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
73	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						8.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
74	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						8.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
75	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						12.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
76	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						1.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
77	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						12.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
78	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						9.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
79	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						11.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
80	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						5.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
81		11/2/17	PUL17-0329	A	ML	16.0	113.0	13.6	108.6	8	96	95 / 103	DP
82		11/2/17	PUL17-0329	A	ML	16.0	113.0	13.1	106.9	8	95	95 / 103	DP
83		11/2/17	PUL17-0329	A	ML	16.0	113.0	15.1	107.4	8	95	95 / 103	DP
84		11/2/17	PUL17-0329	A	ML	16.0	113.0	15.3	108.3	8	96	95 / 103	DP
85		11/2/17	PUL17-0329	A	ML	16.0	113.0	15.0	107.0	8	95	95 / 103	DP
86		11/2/17	PUL17-0329	A	ML	16.0	113.0	15.8	107.3	8	95	95 / 103	DP
87		11/2/17	PUL17-0329	A	ML	16.0	113.0	15.8	107.8	8	95	95 / 103	DP
88		11/2/17	PUL17-0329	A	ML	16.0	113.0	17.9	107.0	8	95	95 / 103	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
81	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						3.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
82	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						3.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
83	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						9.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
84	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						5.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
85	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						8.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
86	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						8.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
87	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						10.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
88	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						6.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
89		11/2/17	PUL17-0329	A	ML	16.0	113.0	15.7	107.7	8	95	95 / 103	DP
90		11/2/17	PUL17-0329	A	ML	16.0	113.0	20.0	108.3	8	96	95 / 103	DP
91		11/2/17	PUL17-0329	A	ML	16.0	113.0	18.4	107.6	8	95	95 / 103	DP
92		11/2/17	PUL17-0329	A	ML	16.0	113.0	12.3	109.4	8	97	95 / 103	DP
93		11/2/17	PUL17-0329	A	ML	16.0	113.0	16.6	109.1	8	97	95 / 103	DP
94		11/2/17	PUL17-0329	A	ML	16.0	113.0	13.1	110.2	8	98	95 / 103	DP
95		11/2/17	PUL17-0329	A	ML	16.0	113.0	14.8	106.8	8	95	95 / 103	DP
96		11/2/17	PUL17-0329	A	ML	16.0	113.0	14.0	107.5	8	95	95 / 103	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
89	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						6.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
90	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						4.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
91	Fill - Subgrade: Fill along draw between Cayuse St. and Wallowa St.						4.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
92	Fill - Subgrade: Fill south of Umatilla St.						5.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
93	Fill - Subgrade: Fill south of Umatilla St.						5.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
94	Fill - Subgrade: Fill south of Umatilla St.						5.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
95	Fill - Subgrade: Fill south of Umatilla St.						2.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
96	Fill - Subgrade: Fill south of Umatilla St.						2.0	BSG		Troxler / 3430 / 61919 / 8/31/2017		MAFFEY, JUSTIN	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
97		11/2/17	PUL17-0329	A	ML	16.0	113.0	19.1	107.1	8	95	95 / 103	DP
98		11/2/17	PUL17-0329	A	ML	16.0	113.0	16.3	106.8	8	95	95 / 103	DP
99		11/2/17	PUL17-0329	A	ML	16.0	113.0	18.6	108.4	8	96	95 / 103	DP
100		11/2/17	PUL17-0329	A	ML	16.0	113.0	19.7	106.9	8	95	95 / 103	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
97	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						12.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
98	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						4.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
99	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						1.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
100	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						5.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
101		11/2/17	PUL17-0329	A	ML	16.0	113.0	19.3	106.8	8	95	95 / 103	DP
102		11/2/17	PUL17-0329	A	ML	16.0	113.0	19.0	107.4	8	95	95 / 103	DP
103		11/2/17	PUL17-0329	A	ML	16.0	113.0	18.5	108.1	8	96	95 / 103	DP
104		11/2/17	PUL17-0329	A	ML	16.0	113.0	19.7	108.1	8	96	95 / 103	DP
105		11/2/17	PUL17-0329	A	ML	16.0	113.0	19.7	107.3	8	95	95 / 103	DP
106		5/8/18	PUL17-0329	A	ML	16.0	113.0	20.7	108.4	8	96	95 / 103	DP
107		5/8/18	PUL17-0329	A	ML	16.0	113.0	18.5	108.8	6	96	95 / 103	DP
108		5/8/18	PUL17-0329	A	ML	16.0	113.0	20.9	107.0	8	95	95 / 103	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
101	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						5.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
102	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						5.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
103	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
104	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						2.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
105	Fill - Subgrade: Fill along draw between Waha Ct. and Cayuse St.						4.0	BSG	Troxler / 3430 / 61919 / 8/31/2017			MAFFEY, JUSTIN	
106	Fill - Embankment: Between Waha Ct. and Cayuse St.						7.0	BSG	Instrotek / X3500 / 1089 / 3/21/2018			MAFFEY, JUSTIN	
107	Fill - Embankment: Between Waha Ct. and Cayuse St.						11.5	BSG	Instrotek / X3500 / 1089 / 3/21/2018			MAFFEY, JUSTIN	
108	Fill - Embankment: Between Cayuse St.and Wallowa St.						9.5	BSG	Instrotek / X3500 / 1089 / 3/21/2018			MAFFEY, JUSTIN	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
109		5/8/18	PUL17-0329	A	ML	16.0	113.0	19.5	107.6	8	95	95 / 103	DP
110		5/8/18	PUL17-0329	A	ML	16.0	113.0	20.7	107.5	8	95	95 / 103	DP
111		5/8/18	PUL17-0329	A	ML	16.0	113.0	18.4	109.3	8	97	95 / 103	DP
112		5/8/18	PUL17-0329	A	ML	16.0	113.0	19.2	109.0	8	96	95 / 103	DP
113		5/8/18	PUL17-0329	A	ML	16.0	113.0	21.4	107.0	8	95	95 / 103	DP
114		5/14/18	PUL17-0329	A	ML	16.0	113.0	17.3	108.5	8	96	95 / 103	DP
115		5/14/18	PUL17-0329	A	ML	16.0	113.0	17.0	109.5	8	97	95 / 103	DP
116		5/14/18	PUL17-0329	A	ML	16.0	113.0	18.0	109.6	8	97	95 / 103	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
109	Fill - Embankment: Between Cayuse St.and Wallowa St.						4.5	BSG	Instrotek / X3500 / 1089 / 3/21/2018			MAFFEY, JUSTIN	
110	Fill - Embankment: Between Waha St. And Cayuse St.						2.5	BSG	Instrotek / X3500 / 1089 / 3/21/2018			MAFFEY, JUSTIN	
111	Fill - Embankment: Between Waha St. And Cayuse St.						4.5	BSG	Instrotek / X3500 / 1089 / 3/21/2018			MAFFEY, JUSTIN	
112	Fill - Embankment: Between Cayuse St. And Wallowa St						9.0	BSG	Instrotek / X3500 / 1089 / 3/21/2018			MAFFEY, JUSTIN	
113	Fill - Embankment: Between Cayuse St. And Wallowa St						9.0	BSG	Instrotek / X3500 / 1089 / 3/21/2018			MAFFEY, JUSTIN	
114	Subgrade: Between Waha Court and Cayuse Street						-6.5	Feet below grade	Troxler / 3430 / 61919 / 8/31/2017			OKEEFE, KYLE	
115	Subgrade: Between Waha Court and Cayuse Street						-6.5	Feet below grade	Troxler / 3430 / 61919 / 8/31/2017			OKEEFE, KYLE	
116	Subgrade: Between Waha Court and Cayuse Street						-6.5	Feet below grade	Troxler / 3430 / 61919 / 8/31/2017			OKEEFE, KYLE	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
117		5/14/18	PUL17-0329	A	ML	16.0	113.0	17.6	107.8	8	95	95 / 103	DP
118		5/14/18	PUL17-0329	A	ML	16.0	113.0	16.7	106.9	8	95	95 / 103	DP
119		5/14/18	PUL17-0329	A	ML	16.0	113.0	16.3	107.2	8	95	95 / 103	DP
120		5/15/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.2	8	95	95 / 103	DP
121		5/15/18	PUL17-0329	A	ML	16.0	113.0	19.3	107.0	8	95	95 / 103	DP
122		5/15/18	PUL17-0329	A	ML	16.0	113.0	18.1	107.5	8	95	95 / 103	DP
123		5/15/18	PUL17-0329	A	ML	16.0	113.0	19.7	106.9	8	95	95 / 103	DP
124		5/15/18	PUL17-0329	A	ML	16.0	113.0	18.2	107.9	8	95	95 / 103	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
117	Subgrade: Between Waha Court and Cayuse Street						-5.5	Feet below grade	Troxler / 3430 / 61919 / 8/31/2017			OKEEFE, KYLE	
118	Subgrade: Between Waha Court and Cayuse Street						-5.5	Feet below grade	Troxler / 3430 / 61919 / 8/31/2017			OKEEFE, KYLE	
119	Subgrade: Between Waha Court and Cayuse Street						-5.5	Feet below grade	Troxler / 3430 / 61919 / 8/31/2017			OKEEFE, KYLE	
120	Fill - Structural: Between Waha and Cayuse						6.5	Below grade	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
121	Fill - Structural: Between Waha and Cayuse						4.5	Below grade	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
122	Fill - Structural: Between Waha and Cayuse						4.5	Below grade	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
123	Fill - Structural: Between Waha and Cayuse						3.5	Below grade	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
124	Fill - Structural: Between Waha and Cayuse						3.5	Below grade	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
125		5/15/18	PUL17-0329	A	ML	16.0	113.0	19.1	106.9	8	95	95 / 103	DP
126		5/15/18	PUL17-0329	A	ML	16.0	113.0	19.1	107.0	8	95	95 / 103	DP
127		5/15/18	PUL17-0329	A	ML	16.0	113.0	18.2	107.2	8	95	95 / 103	DP
128		5/21/18	PUL17-0177	A	ML	13.5	114.5	16.5	112.9	8	99	95 /	DP
129		5/21/18	PUL17-0177	A	ML	13.5	114.5	19.4	109.5	8	96	95 /	DP/MF
130		5/21/18	PUL17-0177	A	ML	13.5	114.5	19.5	109.5	8	96	95 /	DP
131		5/21/18	PUL17-0177	A	ML	13.5	114.5	19.1	109.2	8	95	95 /	DP
132		5/22/18	PUL17-0177	A	ML	13.5	114.5	18.2	109.6	8	96	95 /	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
125	Fill - Structural: Between Waha and Cayuse						1.5	Below grade	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
126	Fill - Structural: Between Waha and Cayuse						6.0	Below grade	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
127	Fill - Structural: Between Waha and Cayuse						6.0	Below grade	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
128	Subgrade: Second Road Downhill						2,566.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
129	Subgrade: Second Road Downhill						2,566.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
130	Subgrade: Second Road Downhill						2,566.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
131	Subgrade: Second Road Downhill						2,566.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
132	Fill - Subgrade: Second street downhill						2,506.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP/MF: Density Pass / Moisture Fail													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
133		5/22/18	PUL17-0177	A	ML	13.5	114.5	18.5	109.5	8	96	95 /	DP
134		5/22/18	PUL17-0177	A	ML	13.5	114.5	19.7	109.1	8	95	95 /	DP
135		5/22/18	PUL17-0177	A	ML	13.5	114.5	18.3	109.0	8	95	95 /	DP
136		5/22/18	PUL17-0177	A	ML	13.5	114.5	18.7	109.9	8	96	95 /	DP
137		5/22/18	PUL17-0177	A	ML	13.5	114.5	18.7	108.3	8	95	95 /	DP
138		5/22/18	PUL17-0177	A	ML	13.5	114.5	19.0	108.4	8	95	95 /	DP
139		5/22/18	PUL17-0177	A	ML	13.5	114.5	18.8	111.4	8	97	95 /	DP
140		5/22/18	PUL17-0177	A	ML	13.5	114.5	19.2	108.5	8	95	95 /	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
133	Fill - Subgrade: South of waha ct						2,506.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			CAMPBELL, CHARLIE	
134	Fill - Subgrade: South of waha ct						2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			CAMPBELL, CHARLIE	
135	Fill - Subgrade: South of waha ct						2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			CAMPBELL, CHARLIE	
136	Fill - Subgrade: South of waha ct						2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			CAMPBELL, CHARLIE	
137	Fill - Subgrade: South of waha ct						2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			CAMPBELL, CHARLIE	
138	Fill - Subgrade: South of waha ct						2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			CAMPBELL, CHARLIE	
139	Fill - Subgrade: South of waha ct						2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			CAMPBELL, CHARLIE	
140	Fill - Subgrade: South of waha ct						2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			CAMPBELL, CHARLIE	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
141		5/22/18	PUL17-0177	A	ML	13.5	114.5	19.4	108.9	8	95	95 /	DP
142		5/22/18	PUL17-0177	A	ML	13.5	114.5	15.8	114.1	8	100	95 /	DP
143		5/22/18	PUL17-0177	A	ML	13.5	114.5	16.8	110.0	8	96	95 /	DP
144		5/22/18	PUL17-0177	A	ML	13.5	114.5	18.3	108.5	8	95	95 /	DP
145		5/22/18	PUL17-0177	A	ML	13.5	114.5	17.4	109.6	8	96	95 /	DP
146		5/22/18	PUL17-0177	A	ML	13.5	114.5	20.0	108.8	8	95	95 /	DP
147		5/22/18	PUL17-0177	A	ML	13.5	114.5	18.7	108.8	8	95	95 /	DP
148		5/22/18	PUL17-0177	A	ML	13.5	114.5	18.5	109.3	8	95	95 /	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
141	Fill - Subgrade: South of waha ct						2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			CAMPBELL, CHARLIE	
142	Fill - Subgrade: South of waha ct						2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			CAMPBELL, CHARLIE	
143	Fill - Subgrade: Second Street down						2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			CAMPBELL, CHARLIE	
144	Fill - Subgrade: Second Street down						2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			CAMPBELL, CHARLIE	
145	Fill - Subgrade: Second Street down						2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			CAMPBELL, CHARLIE	
146	Fill - Subgrade: Second Street down						2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			CAMPBELL, CHARLIE	
147	Fill - Subgrade: Waha Ct						2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			CAMPBELL, CHARLIE	
148	Fill - Subgrade: Waha Ct						2,450.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
149		5/23/18	PUL17-0329	A	ML	16.0	113.0	17.1	108.7	8	96	95 /	DP
150		5/23/18	PUL17-0329	A	ML	16.0	113.0	18.3	107.6	8	95	95 /	DP
151		5/23/18	PUL17-0329	A	ML	16.0	113.0	17.9	108.6	8	96	95 /	DP
152		5/23/18	PUL17-0329	A	ML	16.0	113.0	17.4	111.3	8	98	95 /	DP
153		5/23/18	PUL17-0177	A	ML	13.5	114.5	19.8	110.6	8	97	95 /	DP
154		5/23/18	PUL17-0177	A	ML	13.5	114.5	17.5	108.3	8	95	95 /	DP
155		5/23/18	PUL17-0177	A	ML	13.5	114.5	16.4	113.9	8	99	95 /	DP
156		5/23/18	PUL17-0177	A	ML	13.5	114.5	14.9	109.9	8	96	95 /	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician
149	Fill - Embankment: Draw between Cayuse and Waha						6.0	BSG		Troxler / 3430 / 22354 / 4/19/2018			MAFFEY, JUSTIN
150	Fill - Embankment: South end						10.0	BSG		Troxler / 3430 / 22354 / 4/19/2018			MAFFEY, JUSTIN
151	Fill - Embankment: South end						10.0	BSG		Troxler / 3430 / 22354 / 4/19/2018			MAFFEY, JUSTIN
152	Fill - Embankment: South end						10.0	BSG		Troxler / 3430 / 22354 / 4/19/2018			MAFFEY, JUSTIN
153	Fill - Subgrade: Waha Ct						2,603.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON
154	Fill - Subgrade: Waha Ct						2,603.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON
155	Fill - Subgrade: Waha Ct						2,603.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON
156	Fill - Subgrade: Waha Ct						2,603.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
157		5/23/18	PUL17-0177	A	ML	13.5	114.5	16.3	109.1	8	95	95 /	DP
158		5/23/18	PUL17-0177	A	ML	13.5	114.5	16.1	108.8	8	95	95 /	DP
159		5/23/18	PUL17-0177	A	ML	13.5	114.5	18.9	110.1	8	96	95 /	DP
160		5/23/18	PUL17-0177	A	ML	13.5	114.5	18.2	108.8	8	95	95 /	DP
161		5/24/18	PUL17-0177	A	ML	13.5	114.5	18.9	108.3	8	95	95 /	DP
162		5/24/18	PUL17-0177	A	ML	13.5	114.5	20.0	108.7	8	95	95 /	DP
163		5/24/18	PUL17-0177	A	ML	13.5	114.5	18.9	108.9	8	95	95 /	DP
164		5/24/18	PUL17-0177	A	ML	13.5	114.5	16.0	110.3	8	96	95 /	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician
157	Fill - Subgrade: Waha Ct						2,603.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON
158	Fill - Subgrade: Waha Ct						2,603.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON
159	Fill - Subgrade: South of Waha Ct						2,603.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON
160	Fill - Subgrade: South of Waha Ct						2,603.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON
161	Fill - Subgrade: Second Road Downhill						2,565.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON
162	Fill - Subgrade: Second Road Downhill						2,565.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON
163	Fill - Subgrade: Second Road Downhill						2,565.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON
164	Fill - Subgrade: Second Road Downhill						2,565.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
165		5/24/18	PUL17-0177	A	ML	13.5	114.5	19.6	109.1	8	95	95 /	DP
166		5/24/18	PUL17-0177	A	ML	13.5	114.5	19.2	108.6	8	95	95 /	DP
167		5/24/18	PUL17-0177	A	ML	13.5	114.5	20.6	108.5	8	95	95 /	DP
168		5/24/18	PUL17-0177	A	ML	13.5	114.5	15.9	110.0	8	96	95 /	DP
169		5/24/18	PUL17-0177	A	ML	13.5	114.5	18.1	109.0	8	95	95 /	DP
170		5/24/18	PUL17-0177	A	ML	13.5	114.5	18.7	108.8	8	95	95 /	DP
171		5/24/18	PUL17-0177	A	ML	13.5	114.5	18.7	108.5	8	95	95 /	DP
172		5/24/18	PUL17-0177	A	ML	13.5	114.5	18.7	108.3	8	95	95 /	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
165	Fill - Subgrade: Waha Ct						2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
166	Fill - Subgrade: Waha Ct						2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
167	Fill - Subgrade: Waha Ct						2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
168	Fill - Subgrade: Waha Ct						2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
169	Fill - Subgrade: Waha Ct						2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
170	Fill - Subgrade: Waha Ct						2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
171	Fill - Subgrade: Waha Ct						2,690.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
172	Fill - Subgrade: Waha Ct						2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
173		5/24/18	PUL17-0177	A	ML	13.5	114.5	19.5	107.9	8	94	95 /	DF
174		5/24/18	PUL17-0177	A	ML	13.5	114.5	19.7	108.3	8	95	95 /	DP
175		5/24/18	PUL17-0177	A	ML	13.5	114.5	17.7	108.7	8	95	95 /	DP
176		5/24/18	PUL17-0177	A	ML	13.5	114.5	19.9	108.3	8	95	95 /	DP
177		5/24/18	PUL17-0177	A	ML	13.5	114.5	18.3	109.5	8	96	95 /	DP
178		5/24/18	PUL17-0177	A	ML	13.5	114.5	16.5	110.1	8	96	95 /	DP
179	173	5/24/18	PUL17-0177	A	ML	13.5	114.5	16.1	109.7	8	96	95 /	DP
180		5/24/18	PUL17-0177	A	ML	13.5	114.5	16.2	109.7	8	96	95 /	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
173	Fill - Subgrade: Waha Ct						2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
174	Fill - Subgrade: Waha Ct						2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
175	Fill - Subgrade: Waha Ct						2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
176	Fill - Subgrade: Waha Ct						2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
177	Fill - Subgrade: Waha Ct						2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
178	Fill - Subgrade: Waha Ct						2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
179	Fill - Subgrade: Waha Ct						2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
180	Fill - Subgrade: Waha Ct						2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
Remarks					Comments								
DF: Density Fail					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP: Density Pass													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
181		5/24/18	PUL17-0177	A	ML	13.5	114.5	19.1	109.1	8	95	95 /	DP
182		5/24/18	PUL17-0177	A	ML	13.5	114.5	19.5	108.5	8	95	95 /	DP
183		5/24/18	PUL17-0177	A	ML	13.5	114.5	17.9	109.1	8	95	95 /	DP
184		5/24/18	PUL17-0177	A	ML	13.5	114.5	19.0	108.4	8	95	95 /	DP
185		5/25/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.4	8	96	95 /	DP/MP
186		5/25/18	PUL17-0329	A	ML	16.0	113.0	18.0	109.3	8	97	95 /	DP/MP
187		5/25/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.6	8	95	95 /	DP/MP
188		5/25/18	PUL17-0177	A	ML	13.5	114.5	16.0	112.9	8	99	95 /	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
181	Fill - Subgrade: Second Street Downhill						2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
182	Fill - Subgrade: Second Street Downhill						2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
183	Fill - Subgrade: Second Street Downhill						2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
184	Fill - Subgrade: Second Street Downhill						2,565.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
185	Fill - Embankment: Wanna court, East end								Troxler / 3430 / 22354 / 4/19/2018			CRESSLER, LUCAS	
186	Fill - Embankment: Wanna court, East end								Troxler / 3430 / 22354 / 4/19/2018			CRESSLER, LUCAS	
187	Fill - Embankment: Wanna court, East end								Troxler / 3430 / 22354 / 4/19/2018			CRESSLER, LUCAS	
188	Fill - Embankment: Wanna court, East end								Troxler / 3430 / 22354 / 4/19/2018			CRESSLER, LUCAS	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP/MP: Density Pass / Moisture Pass													



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
189		5/25/18	PUL17-0329	A	ML	16.0	113.0	17.0	110.3	8	98	95 /	DP/MP
190		5/25/18	PUL17-0329	A	ML	16.0	113.0	16.0	107.8	8	95	95 /	DP/MP
191		5/25/18	PUL17-0329	A	ML	16.0	113.0	18.0	106.8	8	95	95 /	DP/MP
192		5/25/18	PUL17-0329	A	ML	16.0	113.0	19.0	109.2	8	97	95 /	DP/MP
193		5/25/18	PUL17-0329	A	ML	16.0	113.0	17.0	111.1	8	98	95 /	DP/MP
194		5/25/18	PUL17-0329	A	ML	16.0	113.0	18.0	109.3	8	97	95 /	DP/MP
195		5/25/18	PUL17-0329	A	ML	16.0	113.0	18.0	108.5	8	96	95 /	DP/MP
196		5/25/18	PUL17-0329	A	ML	16.0	113.0	18.0	109.3	8	97	95 /	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
189	Fill - Embankment: Wanna court, East end									Troxler / 3430 / 22354 / 4/19/2018		CRESSLER, LUCAS	
190	Fill - Embankment: Wanna court, East end									Troxler / 3430 / 22354 / 4/19/2018		CRESSLER, LUCAS	
191	Fill - Embankment: Wanna court, East end									Troxler / 3430 / 22354 / 4/19/2018		CRESSLER, LUCAS	
192	Fill - Embankment: Wanna court, East end									Troxler / 3430 / 22354 / 4/19/2018		CRESSLER, LUCAS	
193	Fill - Embankment: Wanna court, East end									Troxler / 3430 / 22354 / 4/19/2018		CRESSLER, LUCAS	
194	Fill - Embankment: Wanna court, East end									Troxler / 3430 / 22354 / 4/19/2018		CRESSLER, LUCAS	
195	Fill - Embankment: Wanna court, East end									Troxler / 3430 / 22354 / 4/19/2018		CRESSLER, LUCAS	
196	Fill - Embankment: Wanna court, East end									Troxler / 3430 / 22354 / 4/19/2018		CRESSLER, LUCAS	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min/Max Comp. (%)	Remark
197		5/25/18	PUL17-0329	A	ML	16.0	113.0	18.0	111.9	8	99	95 /	DP/MP
198		5/25/18	PUL17-0329	A	ML	16.0	113.0	16.0	106.9	8	95	95 /	DP/MP
199		5/25/18	PUL17-0329	A	ML	16.0	113.0	18.0	110.2	8	98	95 /	DP/MP
200		5/25/18	PUL17-0329	A	ML	16.0	113.0	17.0	110.3	8	98	95 /	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician
197	Fill - Embankment: Wanna court, East end									Troxler / 3430 / 22354 / 4/19/2018			CRESSLER, LUCAS
198	Fill - Embankment: Cayuse st, West end									Troxler / 3430 / 22354 / 4/19/2018			CRESSLER, LUCAS
199	Fill - Embankment: Cayuse st, West end									Troxler / 3430 / 22354 / 4/19/2018			CRESSLER, LUCAS
200	Fill - Embankment: Cayuse st, West end									Troxler / 3430 / 22354 / 4/19/2018			CRESSLER, LUCAS
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

**Client:**

KIP Development  
 594 SE Bishop Boulevard, Suite 102  
 Pullman, WA 99163

**Project:**

PU17212B  
 Sundance South Subdivision  
 Sundance Court  
 Pullman, WA 99163

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
201		5/29/18	PUL17-0329	A	ML	16.0	113.0	18.0	108.5	8	96	95	DP/MP
202		5/29/18	PUL17-0329	A	ML	16.0	113.0	16.0	108.6	8	96	95	DP/MP
203		5/29/18	PUL17-0329	A	ML	16.0	113.0	17.0	111.1	8	98	95	DP/MP
204		5/29/18	PUL17-0329	A	ML	16.0	113.0	15.0	113.9	8	101	95	DP/MP
205		5/29/18	PUL17-0329	A	ML	16.0	113.0	15.0	110.4	8	98	95	DP/MP
206		5/29/18	PUL17-0329	A	ML	16.0	113.0	19.0	110.1	8	97	95	DP/MP
207		5/29/18	PUL17-0329	A	ML	16.0	113.0	18.0	107.6	8	95	95	DP/MP
208		5/29/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.4	8	96	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
201	Fill - Embankment: Coyuse ct									Troxler / 3430 / 22354 / 4/19/2018		CRESSLER, LUCAS	
202	Fill - Embankment: Waha st									Troxler / 3430 / 22354 / 4/19/2018		CRESSLER, LUCAS	
203	Fill - Embankment: Waha st									Troxler / 3430 / 22354 / 4/19/2018		CRESSLER, LUCAS	
204	Fill - Embankment: Waha st									Troxler / 3430 / 22354 / 4/19/2018		CRESSLER, LUCAS	
205	Fill - Embankment: Waha st									Troxler / 3430 / 22354 / 4/19/2018		CRESSLER, LUCAS	
206	Fill - Embankment: Waha st									Troxler / 3430 / 22354 / 4/19/2018		CRESSLER, LUCAS	
207	Fill - Embankment: Waha st									Troxler / 3430 / 22354 / 4/19/2018		CRESSLER, LUCAS	
208	Fill - Embankment: Waha st									Troxler / 3430 / 22354 / 4/19/2018		CRESSLER, LUCAS	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
209		5/29/18	PUL17-0329	A	ML	16.0	113.0	17.0	109.4	8	97	95	DP/MP
210		5/29/18	PUL17-0329	A	ML	16.0	113.0	17.0	106.8	8	95	95	DP/MP
211		5/29/18	PUL17-0329	A	ML	16.0	113.0	18.0	106.8	8	95	95	DP/MP
212		5/29/18	PUL17-0329	A	ML	16.0	113.0	15.0	108.7	8	96	95	DP/MP
213		5/29/18	PUL17-0329	A	ML	16.0	113.0	17.7	111.4	8	99	95	DP/MP
214		5/29/18	PUL17-0329	A	ML	16.0	113.0	15.1	110.3	8	98	95	DP/MP
215		5/30/18	PUL17-0329	A	ML	16.0	113.0	18.7	108.9	8	96	95	DP
216		5/30/18	PUL17-0329	A	ML	16.0	113.0	15.6	106.9	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
209	Fill - Embankment: Waha st								Troxler / 3430 / 22354 / 4/19/2018			CRESSLER, LUCAS	
210	Fill - Embankment: Waha st								Troxler / 3430 / 22354 / 4/19/2018			CRESSLER, LUCAS	
211	Fill - Embankment: Waha st								Troxler / 3430 / 22354 / 4/19/2018			CRESSLER, LUCAS	
212	Fill - Embankment: Waha st								Troxler / 3430 / 22354 / 4/19/2018			CRESSLER, LUCAS	
213	Fill - Embankment: Waha st								Troxler / 3430 / 22354 / 4/19/2018			CRESSLER, LUCAS	
214	Fill - Embankment: Cayuse ct								Troxler / 3430 / 22354 / 4/19/2018			CRESSLER, LUCAS	
215	Fill - Embankment: South of Cayuse St.						4.0	BSG	Instrotek / X3500 / 718 / 3/21/2018			MAFFEY, JUSTIN	
216	Fill - Embankment: South of Cayuse St.						8.0	BSG	Instrotek / X3500 / 718 / 3/21/2018			MAFFEY, JUSTIN	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP: Density Pass													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
217		5/30/18	PUL17-0329	A	ML	16.0	113.0	13.6	107.5	8	95	95	DP
218		5/30/18	PUL17-0329	A	ML	16.0	113.0	17.6	109.3	8	97	95	DP
219		5/30/18	PUL17-0329	A	ML	16.0	113.0	18.0	110.2	8	98	95	DP
220		5/30/18	PUL17-0329	A	ML	16.0	113.0	11.6	110.2	8	98	95	DP
221		5/30/18	PUL17-0329	A	ML	16.0	113.0	16.5	107.2	8	95	95	DP
222		5/30/18	PUL17-0329	A	ML	16.0	113.0	18.8	107.5	8	95	95	DP
223		5/30/18	PUL17-0329	A	ML	16.0	113.0	14.6	109.0	8	96	95	DP
224		5/30/18	PUL17-0329	A	ML	16.0	113.0	16.1	108.4	8	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
217	Fill - Embankment: South of Cayuse St.						10.0	BSG		Instrotek / X3500 / 718 / 3/21/2018		MAFFEY, JUSTIN	
218	Fill - Embankment: South of Cayuse St.						13.0	BSG		Instrotek / X3500 / 718 / 3/21/2018		MAFFEY, JUSTIN	
219	Fill - Embankment: South of Cayuse St.						9.0	BSG		Instrotek / X3500 / 718 / 3/21/2018		MAFFEY, JUSTIN	
220	Fill - Embankment: South of Cayuse St.						8.0	BSG		Instrotek / X3500 / 718 / 3/21/2018		MAFFEY, JUSTIN	
221	Fill - Embankment: South of Cayuse St.						8.0	BSG		Instrotek / X3500 / 718 / 3/21/2018		MAFFEY, JUSTIN	
222	Fill - Embankment: South of Cayuse St.						3.0	BSG		Instrotek / X3500 / 718 / 3/21/2018		MAFFEY, JUSTIN	
223	Fill - Embankment: South of Cayuse St.						4.0	BSG		Instrotek / X3500 / 718 / 3/21/2018		MAFFEY, JUSTIN	
224	Fill - Embankment: Cayuse St.						3.0	BSG		Instrotek / X3500 / 718 / 3/21/2018		MAFFEY, JUSTIN	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

**Client:**

KIP Development  
 594 SE Bishop Boulevard, Suite 102  
 Pullman, WA 99163

**Project:**

PU17212B  
 Sundance South Subdivision  
 Sundance Court  
 Pullman, WA 99163

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
225		5/30/18	PUL17-0329	A	ML	16.0	113.0	9.8	112.1	8	99	95	DP
226		5/30/18	PUL17-0329	A	ML	16.0	113.0	16.4	107.9	8	95	95	DP
227		5/30/18	PUL17-0329	A	ML	16.0	113.0	16.7	107.9	8	95	95	DP
228		5/30/18	PUL17-0329	A	ML	16.0	113.0	17.3	107.2	8	95	95	DP
229		5/30/18	PUL17-0329	A	ML	16.0	113.0	12.1	108.6	8	96	95	DP
230		5/30/18	PUL17-0329	A	ML	16.0	113.0	17.2	107.2	8	95	95	DP
231		5/30/18	PUL17-0329	A	ML	16.0	113.0	13.9	107.5	8	95	95	DP
232		5/30/18	PUL17-0329	A	ML	16.0	113.0	12.8	111.2	8	98	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
225	Fill - Embankment: Between Waha Ct. And Cayuse St.						0.0	@ subgrade		Instrotek / X3500 / 718 / 3/21/2018		MAFFEY, JUSTIN	
226	Fill - Embankment: Waha Ct						4.0	BSG		Instrotek / X3500 / 1089 / 3/21/2018		MAFFEY, JUSTIN	
227	Fill - Embankment: Waha Ct						4.0	BSG		Instrotek / X3500 / 1089 / 3/21/2018		MAFFEY, JUSTIN	
228	Fill - Embankment: Waha Ct						4.0	BSG		Instrotek / X3500 / 1089 / 3/21/2018		MAFFEY, JUSTIN	
229	Fill - Embankment: Waha Ct						4.0	BSG		Instrotek / X3500 / 1089 / 3/21/2018		MAFFEY, JUSTIN	
230	Fill - Embankment: Waha Ct						4.0	BSG		Instrotek / X3500 / 1089 / 3/21/2018		MAFFEY, JUSTIN	
231	Fill - Embankment: Waha Ct						4.0	BSG		Instrotek / X3500 / 1089 / 3/21/2018		MAFFEY, JUSTIN	
232	Fill - Embankment: Waha Ct						4.0	BSG		Instrotek / X3500 / 1089 / 3/21/2018		MAFFEY, JUSTIN	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
233		5/30/18	PUL17-0329	A	ML	16.0	113.0	14.4	108.5	8	96	95	DP
234		5/30/18	PUL17-0329	A	ML	16.0	113.0	18.6	108.8	8	96	95	DP
235		5/30/18	PUL17-0329	A	ML	16.0	113.0	20.3	107.0	8	95	95	DP
236		5/30/18	PUL17-0329	A	ML	16.0	113.0	19.2	107.2	8	95	95	DP
237		5/30/18	PUL17-0329	A	ML	16.0	113.0	21.4	107.7	8	95	95	DP
238		5/30/18	PUL17-0329	A	ML	16.0	113.0	20.0	107.8	8	95	95	DP
239		5/31/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.4	8	96	95	DP/MP
240		5/31/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.6	8	95	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
233	Fill - Embankment: Waha Ct						4.0	BSG	Instrotek / X3500 / 1089 / 3/21/2018			MAFFEY, JUSTIN	
234	Fill - Embankment: South of Cayuse St.						7.0	BSG	Instrotek / X3500 / 718 / 3/21/2018			MAFFEY, JUSTIN	
235	Fill - Embankment: South of Cayuse St.						9.0	BSG	Instrotek / X3500 / 718 / 3/21/2018			MAFFEY, JUSTIN	
236	Fill - Embankment: South of Cayuse St.						13.0	BSG	Instrotek / X3500 / 718 / 3/21/2018			MAFFEY, JUSTIN	
237	Fill - Embankment: South of Cayuse St.						7.0	BSG	Instrotek / X3500 / 718 / 3/21/2018			MAFFEY, JUSTIN	
238	Fill - Embankment: South of Cayuse St.						5.0	BSG	Instrotek / X3500 / 718 / 3/21/2018			MAFFEY, JUSTIN	
239	Fill - Embankment: Cayuse ct								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
240	Fill - Embankment: Cayuse ct								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP/MP: Density Pass / Moisture Pass													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
241		5/31/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.4	8	96	95	DP/MP
242		5/31/18	PUL17-0329	A	ML	16.0	113.0	16.0	110.3	8	98	95	DP/MP
243		5/31/18	PUL17-0329	A	ML	16.0	113.0	19.0	109.2	8	97	95	DP/MP
244		5/31/18	PUL17-0329	A	ML	16.0	113.0	18.0	106.8	8	95	95	DP/MP
245		5/31/18	PUL17-0329	A	ML	16.0	113.0	16.0	106.9	8	95	95	DP/MP
246		5/31/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.6	8	95	95	DP/MP
247		5/31/18	PUL17-0329	A	ML	16.0	113.0	15.0	110.4	8	98	95	DP/MP
248		5/31/18	PUL17-0329	A	ML	16.0	113.0	17.0	106.8	8	95	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
241	Fill - Embankment: Cayuse ct									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
242	Fill - Embankment: Cayuse ct									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
243	Fill - Embankment: Cayuse ct									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
244	Fill - Embankment: Cayuse ct									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
245	Fill - Embankment: Cayuse ct									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
246	Fill - Embankment: Cayuse ct									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
247	Fill - Embankment: Cayuse ct									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
248	Fill - Embankment: Cayuse ct									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
249		5/31/18	PUL17-0329	A	ML	16.0	113.0	18.0	107.6	8	95	95	DP/MP
250		5/31/18	PUL17-0329	A	ML	16.0	113.0	15.0	112.2	8	99	95	DP/MP
251		5/31/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.6	8	95	95	DP/MP
252		5/31/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.6	8	95	95	DP/MP
253		5/31/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.6	8	95	95	DP/MP
254		5/31/18	PUL17-0329	A	ML	16.0	113.0	18.0	107.6	8	95	95	DP/MP
255		5/31/18	PUL17-0329	A	ML	16.0	113.0	15.0	110.4	8	98	95	DP/MP
256		6/1/18	PUL17-0329	A	ML	16.0	113.0	18.9	108.6	8	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
249	Fill - Embankment: Cayuse ct								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
250	Fill - Embankment: Cayuse ct								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
251	Fill - Embankment: Cayuse ct								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
252	Fill - Embankment: Cayuse ct								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
253	Fill - Embankment: Cayuse ct								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
254	Fill - Embankment: Cayuse ct								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
255	Fill - Embankment: Cayuse ct								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
256	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street down						2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018			CAMPBELL, CHARLIE	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP: Density Pass													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
257		6/1/18	PUL17-0329	A	ML	16.0	113.0	18.0	110.3	8	98	95	DP
258		6/1/18	PUL17-0329	A	ML	16.0	113.0	16.6	108.5	8	96	95	DP
259		6/1/18	PUL17-0329	A	ML	16.0	113.0	16.3	108.4	8	96	95	DP
260		6/1/18	PUL17-0329	A	ML	16.0	113.0	18.1	109.2	8	97	95	DP
261		6/1/18	PUL17-0329	A	ML	16.0	113.0	17.8	107.3	8	95	95	DP
262		6/1/18	PUL17-0329	A	ML	16.0	113.0	14.6	107.7	8	95	95	DP
263		6/1/18	PUL17-0329	A	ML	16.0	113.0	17.5	107.3	8	95	95	DP
264		6/1/18	PUL17-0329	A	ML	16.0	113.0	17.7	107.6	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
257	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street down						2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018			CAMPBELL, CHARLIE	
258	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street down						2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018			CAMPBELL, CHARLIE	
259	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street down						2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018			CAMPBELL, CHARLIE	
260	Fill - P-152 Excavation, Subgrade, and Embankment: South of Waha CT						2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018			CAMPBELL, CHARLIE	
261	Fill - P-152 Excavation, Subgrade, and Embankment: South of Waha CT						2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018			CAMPBELL, CHARLIE	
262	Fill - P-152 Excavation, Subgrade, and Embankment: South of Waha CT						2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018			CAMPBELL, CHARLIE	
263	Fill - P-152 Excavation, Subgrade, and Embankment: South of Waha CT						2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018			CAMPBELL, CHARLIE	
264	Fill - P-152 Excavation, Subgrade, and Embankment: South of Waha CT						2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018			CAMPBELL, CHARLIE	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
265		6/1/18	PUL17-0329	A	ML	16.0	113.0	17.3	107.7	8	95	95	DP
266		6/1/18	PUL17-0329	A	ML	16.0	113.0	14.5	112.5	8	100	95	DP
267		6/1/18	PUL17-0329	A	ML	16.0	113.0	10.4	107.6	8	95	95	DP
268		6/1/18	PUL17-0329	A	ML	16.0	113.0	16.3	107.0	8	95	95	DP
269		6/1/18	PUL17-0329	A	ML	16.0	113.0	20.1	107.2	8	95	95	DP
270		6/1/18	PUL17-0329	A	ML	16.0	113.0	18.9	107.4	8	95	95	DP
271		6/1/18	PUL17-0329	A	ML	16.0	113.0	18.3	107.4	8	95	95	DP
272		6/1/18	PUL17-0329	A	ML	16.0	113.0	18.6	107.8	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
265	Fill - P-152 Excavation, Subgrade, and Embankment: South of Waha CT						2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018			CAMPBELL, CHARLIE	
266	Fill - P-152 Excavation, Subgrade, and Embankment: South of Waha CT						2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018			CAMPBELL, CHARLIE	
267	Fill - P-152 Excavation, Subgrade, and Embankment: South of Waha CT						2,550.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018			CAMPBELL, CHARLIE	
268	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill						2,566.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
269	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill						2,566.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
270	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill						2,566.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
271	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill						2,566.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
272	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill						2,566.0	AMSL	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
273		6/2/18	PUL17-0329	A	ML	16.0	113.0	18.6	108.4	8	96	95	DP
274		6/2/18	PUL17-0329	A	ML	16.0	113.0	16.5	110.9	8	98	95	DP
275		6/2/18	PUL17-0329	A	ML	16.0	113.0	15.4	111.2	8	98	95	DP
276		6/2/18	PUL17-0329	A	ML	16.0	113.0	15.6	110.6	8	98	95	DP
277		6/2/18	PUL17-0329	A	ML	16.0	113.0	15.7	110.5	8	98	95	DP
278		6/2/18	PUL17-0329	A	ML	16.0	113.0	16.0	108.9	8	96	95	DP
279		6/2/18	PUL17-0329	A	ML	16.0	113.0	18.2	106.9	8	95	95	DP
280		6/2/18	PUL17-0329	A	ML	16.0	113.0	19.4	107.2	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
273	Fill - Embankment: Between Cayuse and Waha Ct.						3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018			OKEEFE, KYLE	
274	Fill - Embankment: Between Cayuse and Waha Ct.						3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018			OKEEFE, KYLE	
275	Fill - Embankment: Between Cayuse and Waha Ct.						1.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018			OKEEFE, KYLE	
276	Fill - Embankment: Between Cayuse and Waha Ct.						1.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018			OKEEFE, KYLE	
277	Fill - Embankment: Between Cayuse and Waha Ct.						3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018			OKEEFE, KYLE	
278	Fill - Embankment: Between Cayuse and Waha Ct.						3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018			OKEEFE, KYLE	
279	Fill - Embankment: Between Cayuse and Waha Ct.						3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018			OKEEFE, KYLE	
280	Fill - Embankment: Between Cayuse and Waha Ct.						3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018			OKEEFE, KYLE	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
281		6/2/18	PUL17-0329	A	ML	16.0	113.0	17.9	107.0	8	95	95	DP
282		6/2/18	PUL17-0329	A	ML	16.0	113.0	18.9	107.0	8	95	95	DP
283		6/2/18	PUL17-0329	A	ML	16.0	113.0	15.1	107.0	8	95	95	DP
284		6/2/18	PUL17-0329	A	ML	16.0	113.0	18.2	107.9	8	95	95	DP
285		6/2/18	PUL17-0329	A	ML	16.0	113.0	17.5	108.1	8	96	95	DP
286		6/2/18	PUL17-0329	A	ML	16.0	113.0	18.7	108.8	8	96	95	DP
287		6/2/18	PUL17-0329	A	ML	16.0	113.0	16.9	108.3	8	96	95	DP
288		6/2/18	PUL17-0329	A	ML	16.0	113.0	17.1	108.7	8	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
281	Fill - Embankment: Between Cayuse and Waha Ct.						3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018			OKEEFE, KYLE	
282	Fill - Embankment: Between Cayuse and Waha Ct.						3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018			OKEEFE, KYLE	
283	Fill - Embankment: Between Cayuse and Waha Ct.						3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018			OKEEFE, KYLE	
284	Fill - Embankment: Between Cayuse and Waha Ct.						3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018			OKEEFE, KYLE	
285	Fill - Embankment: Between Cayuse and Waha Ct.						3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018			OKEEFE, KYLE	
286	Fill - Embankment: Between Cayuse and Waha Ct.						3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018			OKEEFE, KYLE	
287	Fill - Embankment: Between Cayuse and Waha Ct.						3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018			OKEEFE, KYLE	
288	Fill - Embankment: Between Cayuse and Waha Ct.						3.0	Feet below finished grade	Instrotek / X3500 / 718 / 3/21/2018			OKEEFE, KYLE	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
289		6/4/18	PUL17-0329	A	ML	16.0	113.0	20.5	107.0	8	95	95	DP
290		6/4/18	PUL17-0329	A	ML	16.0	113.0	16.3	111.6	8	99	95	DP
291		6/4/18	PUL17-0329	A	ML	16.0	113.0	18.1	108.3	8	96	95	DP
292		6/4/18	PUL17-0329	A	ML	16.0	113.0	18.2	107.8	8	95	95	DP
293		6/4/18	PUL17-0329	A	ML	16.0	113.0	16.8	110.7	8	98	95	DP
294		6/4/18	PUL17-0329	A	ML	16.0	113.0	17.1	110.9	8	98	95	DP
295		6/4/18	PUL17-0329	A	ML	16.0	113.0	15.7	111.1	8	98	95	DP
296		6/4/18	PUL17-0329	A	ML	16.0	113.0	18.5	109.7	8	97	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician
289	Fill - P-152 Excavation, Subgrade, and Embankment: South Waha Ct.						2,561.0	AMSL		Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON
290	Fill - P-152 Excavation, Subgrade, and Embankment: South Waha Ct.						2,561.0	AMSL		Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON
291	Fill - P-152 Excavation, Subgrade, and Embankment: South Waha Ct.						2,561.0	AMSL		Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON
292	Fill - P-152 Excavation, Subgrade, and Embankment: South Waha Ct.						2,561.0	AMSL		Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON
293	Fill - P-152 Excavation, Subgrade, and Embankment: South Waha Ct.						2,561.0	AMSL		Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON
294	Fill - P-152 Excavation, Subgrade, and Embankment: South Waha Ct.						2,561.0	AMSL		Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON
295	Fill - P-152 Excavation, Subgrade, and Embankment: South Waha Ct.						2,561.0	AMSL		Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON
296	Fill - P-152 Excavation, Subgrade, and Embankment: South Waha Ct.						2,561.0	AMSL		Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
297		6/4/18	PUL17-0329	A	ML	16.0	113.0	16.0	110.5	8	98	95	DP
298		6/4/18	PUL17-0329	A	ML	16.0	113.0	19.3	107.1	8	95	95	DP
299		6/4/18	PUL17-0329	A	ML	16.0	113.0	19.6	108.4	8	96	95	DP
300		6/4/18	PUL17-0329	A	ML	16.0	113.0	18.4	107.9	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
297	Fill - P-152 Excavation, Subgrade, and Embankment: South Waha Ct.						2,561.0	AMSL		Troxler / 3430 / 61919 / 8/31/2017		BELL, BRITTON	
298	Fill - P-152 Excavation, Subgrade, and Embankment: South Waha Ct.						2,561.0	AMSL		Troxler / 3430 / 61919 / 8/31/2017		BELL, BRITTON	
299	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill						2,538.0	AMSL		Troxler / 3430 / 61919 / 8/31/2017		BELL, BRITTON	
300	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill						2,538.0	AMSL		Troxler / 3430 / 61919 / 8/31/2017		BELL, BRITTON	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
301		6/4/18	PUL17-0329	A	ML	16.0	113.0	15.9	111.0	8	98	95	DP
302		6/4/18	PUL17-0329	A	ML	16.0	113.0	18.0	109.7	8	97	95	DP
303		6/4/18	PUL17-0329	A	ML	16.0	113.0	13.6	107.7	8	95	95	DP
304		6/4/18	PUL17-0329	A	ML	16.0	113.0	17.6	108.2	8	96	95	DP
305		6/4/18	PUL17-0329	A	ML	16.0	113.0	18.0	108.9	8	96	95	DP
306		6/4/18	PUL17-0329	A	ML	16.0	113.0	17.5	110.5	8	98	95	DP
307		6/5/18	PUL17-0177	A	ML	13.5	114.5	16.0	108.6	8	95	95	DP/MP
308		6/5/18	PUL17-0177	A	ML	13.5	114.5	16.0	111.2	8	97	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
301	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill						2,538.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON	
302	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill						2,538.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON	
303	Fill - P-152 Excavation, Subgrade, and Embankment: Lowest Landing						2,496.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON	
304	Fill - P-152 Excavation, Subgrade, and Embankment: Lowest Landing						2,496.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON	
305	Fill - P-152 Excavation, Subgrade, and Embankment: Lowest Landing						2,496.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON	
306	Fill - P-152 Excavation, Subgrade, and Embankment: Lowest Landing						2,496.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON	
307	Fill - Embankment: Cayuse								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
308	Fill - Embankment: Cayuse								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP/MP: Density Pass / Moisture Pass													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
309		6/5/18	PUL17-0177	A	ML	13.5	114.5	18.0	111.9	8	98	95	DP/MF
310		6/5/18	PUL17-0177	A	ML	13.5	114.5	18.0	109.3	8	95	95	DP/MF
311		6/5/18	PUL17-0329	A	ML	16.0	113.0	17.0	106.8	8	95	95	DP/MP
312		6/5/18	PUL17-0329	A	ML	16.0	113.0	17.0	107.7	8	95	95	DP/MP
313		6/6/18	PUL17-0177	A	ML	13.5	114.5	16.8	111.8	8	98	95	DP
314		6/6/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.7	8	95	95	DP
315		6/6/18	PUL17-0329	A	ML	16.0	113.0	17.9	107.9	8	95	95	DP
316		6/6/18	PUL17-0329	A	ML	16.0	113.0	14.4	108.7	8	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
309	Backfill - Sanitary Sewer Line Trench: Cayuse st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
310	Backfill - Sanitary Sewer Line Trench: Cayuse st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
311	Backfill - Sanitary Sewer Line Trench: Cayuse st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
312	Backfill - Sanitary Sewer Line Trench: Cayuse st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
313	Fill - Structural: Cayuse st						2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
314	Fill - Embankment: South of Cayuse St.						1.0	BSG	Troxler / 3430 / 37625 / 3/21/2018			MAFFEY, JUSTIN	
315	Fill - Embankment: South of Cayuse St.						2.0	BSG	Troxler / 3430 / 37625 / 3/21/2018			MAFFEY, JUSTIN	
316	Fill - Embankment: South of Cayuse St.						2.0	BSG	Troxler / 3430 / 37625 / 3/21/2018			MAFFEY, JUSTIN	
Remarks					Comments								
DP/MF: Density Pass / Moisture Fail					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP/MP: Density Pass / Moisture Pass													
DP: Density Pass													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
317		6/6/18	PUL17-0329	A	ML	16.0	113.0	19.2	107.4	8	95	95	DP
318		6/6/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.1	8	96	95	DP
319		6/6/18	PUL17-0329	A	ML	16.0	113.0	20.1	107.8	8	95	95	DP
320		6/6/18	PUL17-0329	A	ML	16.0	113.0	18.9	107.3	8	95	95	DP
321		6/6/18	PUL17-0329	A	ML	16.0	113.0	14.9	108.3	8	96	95	DP
322		6/6/18	PUL17-0329	A	ML	16.0	113.0	18.4	106.9	8	95	95	DP
323		6/6/18	PUL17-0329	A	ML	16.0	113.0	18.3	107.4	8	95	95	DP
324		6/6/18	PUL17-0329	A	ML	16.0	113.0	16.7	107.3	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
317	Fill - Embankment: South of Cayuse St.						4.0	BSG	Troxler / 3430 / 37625 / 3/21/2018			MAFFEY, JUSTIN	
318	Fill - Embankment: South of Cayuse St.						6.0	BSG	Troxler / 3430 / 37625 / 3/21/2018			MAFFEY, JUSTIN	
319	Fill - Embankment: South and east of Cayuse St. along construction access road						9.0	BSG	Troxler / 3430 / 37625 / 3/21/2018			MAFFEY, JUSTIN	
320	Fill - Embankment: South of Wallowa St.						7.0	BSG	Troxler / 3430 / 37625 / 3/21/2018			MAFFEY, JUSTIN	
321	Fill - Embankment: South of Wallowa St.						8.0	BSG	Troxler / 3430 / 37625 / 3/21/2018			MAFFEY, JUSTIN	
322	Fill - Embankment: South of Wallowa St.						4.0	BSG	Troxler / 3430 / 37625 / 3/21/2018			MAFFEY, JUSTIN	
323	Fill - Embankment: South of Umatilla Ct.						8.0	BSG	Troxler / 3430 / 37625 / 3/21/2018			MAFFEY, JUSTIN	
324	Fill - Embankment: South of Umatilla Ct.						8.0	BSG	Troxler / 3430 / 37625 / 3/21/2018			MAFFEY, JUSTIN	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
325		6/7/18	PUL17-0329	A	ML	16.0	113.0	17.4	108.5	8	96	95	DP
326		6/7/18	PUL17-0329	A	ML	16.0	113.0	17.9	106.9	8	95	95	DP
327		6/7/18	PUL17-0329	A	ML	16.0	113.0	17.7	108.2	8	96	95	DP
328		6/7/18	PUL17-0329	A	ML	16.0	113.0	17.8	107.4	8	95	95	DP
329		6/7/18	PUL17-0329	A	ML	16.0	113.0	18.5	106.8	8	95	95	DP
330		6/7/18	PUL17-0329	A	ML	16.0	113.0	18.9	107.8	8	95	95	DP
331		6/7/18	PUL17-0329	A	ML	16.0	113.0	20.6	106.9	8	95	95	DP
332		6/7/18	PUL17-0329	A	ML	16.0	113.0	18.1	108.8	8	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
325	Fill - P-152 Excavation, Subgrade, and Embankment: East Load Road						2,544.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON	
326	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill						2,544.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON	
327	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill						2,532.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON	
328	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill						2,532.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON	
329	Fill - P-152 Excavation, Subgrade, and Embankment: Second Street Downhill						2,532.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON	
330	Fill - P-152 Excavation, Subgrade, and Embankment: Lowest Lift						2,500.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON	
331	Fill - P-152 Excavation, Subgrade, and Embankment: Lowest Lift						2,500.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON	
332	Fill - P-152 Excavation, Subgrade, and Embankment: Lowest Lift						2,500.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
333		6/7/18	PUL17-0329	A	ML	16.0	113.0	17.3	109.0	8	96	95	DP
334		6/8/18	PUL17-0329	A	ML	16.0	113.0	17.3	108.1	8	96	95	DP/MP
335		6/8/18	PUL17-0329	A	ML	16.0	113.0	16.1	107.5	8	95	95	DP/MP
336		6/8/18	PUL17-0329	A	ML	16.0	113.0	16.9	108.7	8	96	95	DP/MP
337		6/8/18	PUL17-0329	A	ML	16.0	113.0	15.0	107.4	8	95	95	DP/MP
338		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.0	110.3	8	98	95	DP/MP
339		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.5	107.0	8	95	95	DP/MP
340		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.0	106.9	8	95	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
333	Fill - P-152 Excavation, Subgrade, and Embankment: Lowest Lift						2,500.0	AMSL	Troxler / 3430 / 61919 / 8/31/2017			BELL, BRITTON	
334	Fill - Embankment: Cayuse St								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
335	Fill - Embankment: Cayuse St								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
336	Fill - Embankment: Cayuse St								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
337	Fill - Embankment: Cayuse St								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
338	Fill - Embankment: Cayuse St								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
339	Fill - Embankment: Cayuse St								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
340	Fill - Embankment: Cayuse St								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP/MP: Density Pass / Moisture Pass													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
341		6/8/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.2	8	95	95	DP/MP
342		6/8/18	PUL17-0329	A	ML	16.0	113.0	19.0	110.3	8	98	95	DP/MP
343		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.5	107.0	8	95	95	DP/MP
344		6/8/18	PUL17-0329	A	ML	16.0	113.0	16.1	107.1	8	95	95	DP/MP
345		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.0	108.2	8	96	95	DP/MP
346		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.6	110.1	8	97	95	DP/MP
347		6/8/18	PUL17-0329	A	ML	16.0	113.0	17.9	109.0	8	96	95	DP/MP
348		6/8/18	PUL17-0329	A	ML	16.0	113.0	16.7	111.3	8	98	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
341	Fill - Embankment: Cayuse St									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
342	Fill - Embankment: Cayuse St									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
343	Fill - Embankment: Cayuse St									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
344	Fill - Embankment: Cayuse St									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
345	Fill - Embankment: Cayuse St									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
346	Fill - General: Wallowa st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
347	Fill - General: Wallowa st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
348	Fill - General: Wallowa st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
349		6/8/18	PUL17-0329	A	ML	16.0	113.0	16.8	109.2	8	97	95	DP/MP
350		6/8/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.3	8	95	95	DP/MP
351		6/8/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.0	8	96	95	DP/MP
352		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.1	107.5	8	95	95	DP/MP
353		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.7	107.8	8	95	95	DP/MP
354		6/8/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.4	8	95	95	DP/MP
355		6/8/18	PUL17-0329	A	ML	16.0	113.0	15.8	111.7	8	99	95	DP/MP
356		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.1	111.7	8	99	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
349	Fill - General: Wallowa st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
350	Fill - General: Wallowa st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
351	Fill - General: Wallowa st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
352	Fill - General: South of Waha st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
353	Fill - General: South of Waha st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
354	Fill - General: South of Waha st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
355	Fill - General: South of Waha st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
356	Fill - General: Waha st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
357		6/8/18	PUL17-0329	A	ML	16.0	113.0	17.6	107.1	8	95	95	DP/MP
358		6/8/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.5	8	96	95	DP/MP
359		6/8/18	PUL17-0329	A	ML	16.0	113.0	15.0	109.0	8	96	95	DP/MP
360		6/8/18	PUL17-0329	A	ML	16.0	113.0	17.6	107.1	8	95	95	DP/MP
361		6/8/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.7	8	96	95	DP/MP
362		6/8/18	PUL17-0329	A	ML	16.0	113.0	19.0	109.3	8	97	95	DP/MP
363		6/8/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.3	8	95	95	DP/MP
364		6/8/18	PUL17-0329	A	ML	16.0	113.0	17.2	109.0	8	96	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
357	Fill - General: Waha st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
358	Fill - General: Waha st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
359	Fill - General: Waha st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
360	Fill - General: Waha st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
361	Fill - General: Waha st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
362	Fill - General: Waha st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
363	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
364	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
365		6/8/18	PUL17-0329	A	ML	16.0	113.0	16.7	109.6	8	97	95	DP/MP
366		6/8/18	PUL17-0329	A	ML	16.0	113.0	17.1	107.4	8	95	95	DP/MP
367		6/8/18	PUL17-0329	A	ML	16.0	113.0	17.1	107.4	8	95	95	DP/MP
368		6/8/18	PUL17-0329	A	ML	16.0	113.0	15.8	107.3	8	95	95	DP/MP
369		6/8/18	PUL17-0329	A	ML	16.0	113.0	15.6	107.1	8	95	95	DP/MP
370		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.8	109.3	8	97	95	DP/MP
371		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.8	109.2	8	97	95	DP/MP
372		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.6	109.4	8	97	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
365	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
366	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
367	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
368	Fill - General: Waha St									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
369	Fill - General: Waha St									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
370	Fill - General: Waha St									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
371	Fill - General: Waha St									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
372	Fill - General: North of Waha St									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
373		6/8/18	PUL17-0329	A	ML	16.0	113.0	16.2	109.0	8	96	95	DP/MP
374		6/8/18	PUL17-0329	A	ML	16.0	113.0	18.9	109.1	8	97	95	DP/MP
375		6/8/18	PUL17-0329	A	ML	16.0	113.0	17.2	110.0	8	97	95	DP/MP
376		6/12/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.9	8	95	95	DP/MP
377		6/12/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.6	8	95	95	DP/MP
378		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.5	108.8	8	96	95	DP/MP
379		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.6	109.0	8	96	95	DP/MP
380		6/12/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.8	8	96	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
373	Fill - General: North of Waha St								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
374	Fill - General: North of Waha St								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
375	Fill - General: North of Waha St								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
376	Fill - General: South of wallowa st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
377	Fill - General: South of wallowa st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
378	Fill - General: South of wallowa st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
379	Fill - General: South of wallowa st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
380	Fill - General: Cayuse st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
381		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.1	109.1	8	97	95	DP/MP
382		6/12/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.7	8	96	95	DP/MP
383		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.5	109.9	8	97	95	DP/MP
384		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.0	108.9	8	96	95	DP/MP
385		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.2	108.2	8	96	95	DP/MP
386		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.9	109.2	8	97	95	DP/MP
387		6/12/18	PUL17-0329	A	ML	16.0	113.0	17.8	108.5	8	96	95	DP/MP
388		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.5	107.8	8	95	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
381	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
382	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
383	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
384	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
385	Fill - General: Wallowa st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
386	Fill - General: Wallowa st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
387	Fill - General: Wallowa st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
388	Fill - General: Waha CT.									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
389		6/12/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.8	8	95	95	DP/MP
390		6/12/18	PUL17-0329	A	ML	16.0	113.0	19.0	109.3	8	97	95	DP/MP
391		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.5	109.3	8	97	95	DP/MP
392		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.5	108.4	8	96	95	DP/MP
393		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.0	108.1	8	96	95	DP/MP
394		6/12/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.2	8	96	95	DP/MP
395		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.1	108.3	8	96	95	DP/MP
396		6/12/18	PUL17-0329	A	ML	16.0	113.0	16.1	108.1	8	96	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
389	Fill - General: Waha CT.								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
390	Fill - General: Waha CT.								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
391	Fill - General: Waha CT.								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
392	Fill - General: Waha CT.								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
393	Fill - General: Waha CT.								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
394	Fill - General: Wallowa st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
395	Fill - General: Wallowa st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
396	Fill - General: Wallowa st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
397		6/12/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.5	8	96	95	DP/MP
398		6/12/18	PUL17-0329	A	ML	16.0	113.0	17.5	106.8	8	95	95	DP/MP
399		6/12/18	PUL17-0329	A	ML	16.0	113.0	19.0	109.5	8	97	95	DP/MP
400		6/12/18	PUL17-0329	A	ML	16.0	113.0	17.1	110.2	8	98	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
397	Fill - General: Wallowa st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
398	Fill - General: Wallowa st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
399	Fill - General: Wallowa st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
400	Fill - General: Wallowa st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
401		6/12/18	PUL17-0329	A	ML	16.0	113.0	17.6	108.8	8	96	95	DP/MP
402		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.5	107.9	8	95	95	DP/MP
403		6/12/18	PUL17-0329	A	ML	16.0	113.0	16.2	108.5	8	96	95	DP/MP
404		6/12/18	PUL17-0329	A	ML	16.0	113.0	18.1	107.9	8	95	95	DP/MP
405		6/12/18	PUL17-0329	A	ML	16.0	113.0	16.1	109.3	8	97	95	DP/MP
406		6/12/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.0	8	96	95	DP/MP
407		6/12/18	PUL17-0329	A	ML	16.0	113.0	16.1	107.5	8	95	95	DP/MP
408		6/13/18	PUL17-0329	A	ML	16.0	113.0	19.0	111.3	8	98	95	DF
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
401	Fill - General: Wallowa st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
402	Fill - General: Wallowa st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
403	Fill - General: Wallowa st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
404	Fill - General: Waha ct								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
405	Fill - General: Waha ct								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
406	Fill - General: Waha ct								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
407	Fill - General: Waha ct								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
408	Fill - General: Cayuse st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DF: Density Fail													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
409		6/13/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.0	8	96	95	DP/MP
410		6/13/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.3	8	96	95	DP/MP
411		6/13/18	PUL17-0329	A	ML	16.0	113.0	19.0	109.7	8	97	95	DP/MP
412		6/13/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.0	8	96	95	DP/MP
413		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.5	107.9	8	95	95	DP/MP
414		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.9	107.7	8	95	95	DP/MP
415		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.0	107.7	8	95	95	DP/MP
416		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.5	108.1	8	96	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
409	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
410	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
411	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
412	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
413	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
414	Fill - General: Waha ct									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
415	Fill - General: Waha ct									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
416	Fill - General: Waha ct									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
417		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.7	107.4	8	95	95	DP/MP
418		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.9	108.5	8	96	95	DP/MP
419		6/13/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.1	8	96	95	DP/MP
420		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.5	109.6	8	97	95	DP/MP
421		6/13/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.4	8	96	95	DP/MP
422		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.5	107.8	8	95	95	DP/MP
423		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.6	107.8	8	95	95	DP/MP
424		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.1	108.3	8	96	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
417	Fill - General: Waha ct								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
418	Fill - General: Waha ct								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
419	Fill - General: Waha ct								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
420	Fill - General: Waha ct								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
421	Fill - Embankment: Waha st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
422	Fill - Embankment: Waha st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
423	Fill - Embankment: Waha st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
424	Fill - Embankment: Waha st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
425		6/13/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.6	8	95	95	DP/MP
426		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.3	107.7	8	95	95	DP/MP
427		6/13/18	PUL17-0329	A	ML	16.0	113.0	18.8	107.2	8	95	95	DP/MP
428		6/13/18	PUL17-0329	A	ML	16.0	113.0	17.6	110.7	8	98	95	DP/MP
429		6/14/18	PUL17-0177	A	ML	13.5	114.5	16.5	112.9	8	99	95	DP/MP
430		6/14/18	PUL17-0177	A	ML	13.5	114.5	15.7	110.0	8	96	95	DP/MP
431		6/14/18	PUL17-0329	A	ML	16.0	113.0	18.7	106.9	8	95	95	DP/MP
432		6/14/18	PUL17-0329	A	ML	16.0	113.0	19.0	110.0	8	97	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
425	Fill - Embankment: Waha st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
426	Fill - Embankment: Waha st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
427	Fill - Embankment: Waha st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
428	Fill - Embankment: Waha st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
429	Fill - General: Waha ct									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
430	Fill - General: Waha ct									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
431	Fill - General: Waha ct									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
432	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

**Client:**

KIP Development  
 594 SE Bishop Boulevard, Suite 102  
 Pullman, WA 99163

**Project:**

PU17212B  
 Sundance South Subdivision  
 Sundance Court  
 Pullman, WA 99163

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
433		6/14/18	PUL17-0329	A	ML	16.0	113.0	18.5	108.5	8	96	95	DP/MP
434		6/14/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.5	8	96	95	DP/MP
435		6/14/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.5	8	95	95	DP/MP
436		6/14/18	PUL17-0329	A	ML	16.0	113.0	18.2	108.8	8	96	95	DP/MP
437		6/14/18	PUL17-0329	A	ML	16.0	113.0	18.1	108.2	8	96	95	DP/MP
438		6/14/18	PUL17-0329	A	ML	16.0	113.0	17.6	110.2	8	98	95	DP/MP
439		6/14/18	PUL17-0329	A	ML	16.0	113.0	16.8	108.0	8	96	95	DP/MP
440		6/14/18	PUL17-0329	A	ML	16.0	113.0	18.5	107.8	8	95	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
433	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
434	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
435	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
436	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
437	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
438	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
439	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
440	Fill - General: Cayuse st									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
441		6/14/18	PUL17-0329	A	ML	16.0	113.0	16.4	109.8	8	97	95	DP/MP
442		6/14/18	PUL17-0329	A	ML	16.0	113.0	18.9	107.5	8	95	95	DP/MP
443		6/14/18	PUL17-0329	A	ML	16.0	113.0	19.0	107.6	8	95	95	DP/MP
444		6/14/18	PUL17-0329	A	ML	16.0	113.0	19.0	108.3	8	96	95	DP/MP
445		6/15/18	PUL17-0329	A	ML	16.0	113.0	15.3	108.8	8	96	95	DP
446		6/15/18	PUL17-0329	A	ML	16.0	113.0	17.2	107.4	8	95	95	DP
447		6/15/18	PUL17-0329	A	ML	16.0	113.0	18.3	107.4	8	95	95	DP
448		6/15/18	PUL17-0329	A	ML	16.0	113.0	19.2	106.8	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
441	Fill - General: Cayuse st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
442	Fill - General: Cayuse st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
443	Fill - General: Cayuse st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
444	Fill - General: Cayuse st								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
445	Fill - Subgrade: Wallowa						2.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018			PERSELL, JOHN	
446	Fill - Subgrade: Wallowa						2.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018			PERSELL, JOHN	
447	Fill - Subgrade: Wallowa						2.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018			PERSELL, JOHN	
448	Fill - Subgrade: Wallowa						2.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018			PERSELL, JOHN	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP: Density Pass													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
449		6/15/18	PUL17-0329	A	ML	16.0	113.0	18.1	106.8	8	95	95	DP
450		6/15/18	PUL17-0329	A	ML	16.0	113.0	16.8	108.7	8	96	95	DP
451		6/15/18	PUL17-0329	A	ML	16.0	113.0	15.7	110.4	8	98	95	DP
452		6/15/18	PUL17-0329	A	ML	16.0	113.0	19.9	107.1	8	95	95	DP
453		6/15/18	PUL17-0329	A	ML	16.0	113.0	18.3	112.2	8	99	95	DP
454		6/15/18	PUL17-0329	A	ML	16.0	113.0	15.9	111.1	8	98	95	DP
455		6/15/18	PUL17-0329	A	ML	16.0	113.0	17.3	109.1	8	97	95	DP
456		6/15/18	PUL17-0329	A	ML	16.0	113.0	14.5	108.2	8	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
449	Fill - Subgrade: Wallowa						2.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018			PERSELL, JOHN	
450	Fill - Subgrade: Cayuse						0.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018			PERSELL, JOHN	
451	Fill - Subgrade: Cayuse						0.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018			PERSELL, JOHN	
452	Fill - Subgrade: Cayuse						6.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018			PERSELL, JOHN	
453	Fill - Subgrade: Cayuse						5.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018			PERSELL, JOHN	
454	Fill - Subgrade: Cayuse						5.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018			PERSELL, JOHN	
455	Fill - Subgrade: Cayuse						5.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018			PERSELL, JOHN	
456	Fill - Subgrade: Umatilla						5.0	Feet below grade	Troxler / 3430 / 22354 / 4/19/2018			PERSELL, JOHN	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
457		6/15/18	PUL17-0329	A	ML	16.0	113.0	17.8	112.4	8	99	95	DP
458		6/20/18	PUL17-0177	A	ML	13.5	114.5	18.6	108.6	8	95	95	DP
459		6/20/18	PUL17-0177	A	ML	13.5	114.5	17.9	115.2	8	101	95	DP
460		6/20/18	PUL17-0177	A	ML	13.5	114.5	18.4	108.5	8	95	95	DP
461		6/20/18	PUL17-0177	A	ML	13.5	114.5	18.2	109.1	8	95	95	DP
462		6/20/18	PUL17-0329	A	ML	16.0	113.0	18.5	107.0	8	95	95	DP/MP
463		6/20/18	PUL17-0329	A	ML	16.0	113.0	15.0	109.9	8	97	95	DP/MP
464		6/20/18	PUL17-0329	A	ML	16.0	113.0	15.8	109.0	8	96	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
457	Fill - Subgrade: Umatilla						5.0	Feet below grade		Troxler / 3430 / 22354 / 4/19/2018		PERSELL, JOHN	
458	Fill - P-152 Excavation and Embankment Outside of Pavement: Third Teir Downhill						2,560.0	AMSL		Instrotek / X3500 / 718 / 3/21/2018		BELL, BRITTON	
459	Fill - P-152 Excavation and Embankment Outside of Pavement: Third Teir Downhill						2,560.0	AMSL		Instrotek / X3500 / 718 / 3/21/2018		BELL, BRITTON	
460	Fill - P-152 Excavation and Embankment Outside of Pavement: Western end of Top Teir						2,611.0	AMSL		Instrotek / X3500 / 718 / 3/21/2018		BELL, BRITTON	
461	Fill - P-152 Excavation and Embankment Outside of Pavement: Western end of Top Teir						2,611.0	AMSL		Instrotek / X3500 / 718 / 3/21/2018		BELL, BRITTON	
462	Fill - General: Waha CT, east end									Instrotek / X3500 / 1089 / 3/21/2018		CRESSLER, LUCAS	
463	Fill - General: Waha CT, east end									Instrotek / X3500 / 1089 / 3/21/2018		CRESSLER, LUCAS	
464	Fill - General: Waha CT, east end									Instrotek / X3500 / 1089 / 3/21/2018		CRESSLER, LUCAS	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP/MP: Density Pass / Moisture Pass													

**Client:**

KIP Development  
 594 SE Bishop Boulevard, Suite 102  
 Pullman, WA 99163

**Project:**

PU17212B  
 Sundance South Subdivision  
 Sundance Court  
 Pullman, WA 99163

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
465		6/22/18	PUL17-0177	A	ML	13.5	114.5	14.7	114.5	8	100	95	DP
466		6/22/18	PUL17-0177	A	ML	13.5	114.5	18.7	109.6	8	96	95	DP
467		6/22/18	PUL17-0177	A	ML	13.5	114.5	14.3	115.3	8	101	95	DP
468		6/22/18	PUL17-0177	A	ML	13.5	114.5	19.7	110.4	8	96	95	DP
469		6/22/18	PUL17-0177	A	ML	13.5	114.5	19.0	113.3	8	99	95	DP
470		6/22/18	PUL17-0177	A	ML	13.5	114.5	19.7	110.6	8	97	95	DP
471		6/22/18	PUL17-0177	A	ML	13.5	114.5	11.3	118.4	8	103	95	DP
472		6/22/18	PUL17-0177	A	ML	13.5	114.5	18.3	112.3	8	98	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
465	Fill - P-152 Excavation and Embankment Outside of Pavement: Lowest Tier						2,504.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018		BELL, BRITTON	
466	Fill - P-152 Excavation and Embankment Outside of Pavement: Lowest Tier						2,504.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018		BELL, BRITTON	
467	Fill - P-152 Excavation and Embankment Outside of Pavement: Lowest Tier						2,504.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018		BELL, BRITTON	
468	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier						2,613.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018		BELL, BRITTON	
469	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier						2,613.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018		BELL, BRITTON	
470	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier						2,613.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018		BELL, BRITTON	
471	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier						2,613.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018		BELL, BRITTON	
472	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier						2,614.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018		BELL, BRITTON	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
473		6/22/18	PUL17-0177	A	ML	13.5	114.5	17.6	110.2	8	96	95	DP
474		6/22/18	PUL17-0177	A	ML	13.5	114.5	16.1	113.2	8	99	95	DP
475		6/22/18	PUL17-0177	A	ML	13.5	114.5	18.9	108.2	8	94	95	DF
476	475	6/22/18	PUL17-0177	A	ML	13.5	114.5	18.5	108.5	8	95	95	DP
477		6/22/18	PUL17-0177	A	ML	13.5	114.5	18.9	108.3	8	95	95	DP
478		6/22/18	PUL17-0177	A	ML	13.5	114.5	18.7	108.9	8	95	95	DP
479		6/22/18	PUL17-0177	A	ML	13.5	114.5	18.2	109.9	8	96	95	DP
480		6/22/18	PUL17-0177	A	ML	13.5	114.5	16.3	109.7	8	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
473	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier						2,614.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
474	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier						2,614.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
475	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier						2,614.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
476	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier						2,614.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
477	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier						2,615.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
478	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier						2,615.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
479	Fill - P-152 Excavation and Embankment Outside of Pavement: Highest Tier						2,615.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
480	Fill - P-152 Excavation and Embankment Outside of Pavement: Lowest Tier						2,501.0	AMSL	Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DF: Density Fail													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
481		6/22/18	PUL17-0177	A	ML	13.5	114.5	18.0	108.9	8	95	95	DP
482		6/22/18	PUL17-0177	A	ML	13.5	114.5	16.3	111.1	8	97	95	DP
483		6/25/18	PUL17-0177	A	ML	13.5	114.5	17.0	108.7	8	95	95	DP
484		6/25/18	PUL17-0177	A	ML	13.5	114.5	17.2	108.8	8	95	95	DP
485		6/27/18	PUL17-0177	A	ML	13.5	114.5	15.5	110.0	8	96	95	DP
486		6/27/18	PUL17-0177	A	ML	13.5	114.5	14.8	108.5	8	95	95	DP
487		6/27/18	PUL17-0177	A	ML	13.5	114.5	18.7	108.3	8	95	95	DP
488		6/27/18	PUL17-0177	A	ML	13.5	114.5	12.4	108.8	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
481	Fill - P-152 Excavation and Embankment Outside of Pavement: Lowest Tier						2,501.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018		BELL, BRITTON	
482	Fill - P-152 Excavation and Embankment Outside of Pavement: Lowest Tier						2,501.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018		BELL, BRITTON	
483	Fill - P-152 Excavation and Embankment Outside of Pavement: Second Highest Tier						2,571.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018		BELL, BRITTON	
484	Fill - P-152 Excavation and Embankment Outside of Pavement: Second Highest Tier						2,571.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018		BELL, BRITTON	
485	Fill - P-152 Excavation and Embankment Outside of Pavement: Eastern Edge of Waha Ct						2,570.0	AMSL		Troxler / 3430 / 61919 / 8/31/2017		BELL, BRITTON	
486	Fill - P-152 Excavation and Embankment Outside of Pavement: Eastern Edge of Waha Ct						2,570.0	AMSL		Troxler / 3430 / 61919 / 8/31/2017		BELL, BRITTON	
487	Fill - P-152 Excavation and Embankment Outside of Pavement: Eastern Edge of Waha Ct						2,570.0	AMSL		Troxler / 3430 / 61919 / 8/31/2017		BELL, BRITTON	
488	Fill - P-152 Excavation and Embankment Outside of Pavement: Eastern Edge of Waha Ct						2,571.0	AMSL		Troxler / 3430 / 61919 / 8/31/2017		BELL, BRITTON	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
489		6/28/18	PUL17-0177	A	ML	13.5	114.5	11.9	110.6	8	97	95	DP
490		6/28/18	PUL17-0177	A	ML	13.5	114.5	13.5	109.2	8	95	95	DP
491		6/28/18	PUL17-0177	A	ML	13.5	114.5	11.4	109.3	8	95	95	DP
492		6/28/18	PUL17-0177	A	ML	13.5	114.5	12.9	115.3	8	101	95	DP
493		6/28/18	PUL17-0177	A	ML	13.5	114.5	12.9	115.3	8	101	95	DP
494		6/29/18	PUL17-0177	A	ML	13.5	114.5	16.9	110.3	8	96	95	DP
495		6/29/18	PUL17-0177	A	ML	13.5	114.5	19.5	109.2	8	95	95	DP
496		6/29/18	PUL17-0177	A	ML	13.5	114.5	20.1	108.4	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician
489	Fill - P-152 Excavation and Embankment Outside of Pavement: Eastern Edge of Waha Ct						2,573.0	AMSL		Instrotek / X3500 / 718 / 3/21/2018			BELL, BRITTON
490	Fill - P-152 Excavation and Embankment Outside of Pavement: Eastern Edge of Waha Ct						2,573.0	AMSL		Instrotek / X3500 / 718 / 3/21/2018			BELL, BRITTON
491	Fill - P-152 Excavation and Embankment Outside of Pavement: Eastern Edge of Waha Ct						2,574.0	AMSL		Instrotek / X3500 / 718 / 3/21/2018			BELL, BRITTON
492	Fill - P-152 Excavation and Embankment Outside of Pavement: Eastern Edge of Waha Ct						2,574.0	AMSL		Instrotek / X3500 / 718 / 3/21/2018			BELL, BRITTON
493	Fill - P-152 Excavation and Embankment Outside of Pavement: Eastern Edge of Waha Ct						2,574.0	AMSL		Instrotek / X3500 / 718 / 3/21/2018			BELL, BRITTON
494	Fill - P-152 Excavation and Embankment Outside of Pavement: Middle Tier						2,549.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON
495	Fill - P-152 Excavation and Embankment Outside of Pavement: Middle Tier						2,550.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON
496	Fill - P-152 Excavation and Embankment Outside of Pavement: Middle Tier						2,550.0	AMSL		Instrotek / X3500 / 1089 / 3/21/2018			BELL, BRITTON
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
497		7/3/18	PUL17-0177	A	ML	13.5	114.5	15.2	113.9	8	99	95	DP
498		7/3/18	PUL17-0177	A	ML	13.5	114.5	15.2	112.1	8	98	95	DP
499		7/3/18	PUL17-0177	A	ML	13.5	114.5	15.3	109.5	8	96	95	DP
500		7/3/18	PUL17-0177	A	ML	13.5	114.5	16.3	109.1	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
497	Fill - Embankment: SE site corner lot fill						-10.0	Finished grade	Instrotek / X3500 / 718 / 3/21/2018			ABRAMS, ANDY	
498	Fill - Embankment: SE site corner lot fill						-10.0	Finished grade	Instrotek / X3500 / 718 / 3/21/2018			ABRAMS, ANDY	
499	Fill - Embankment: East end of second bench. Lot fill						-1.0	Finished grade	Instrotek / X3500 / 718 / 3/21/2018			ABRAMS, ANDY	
500	Fill - Embankment: East end of second bench. Lot fill						-1.0	Finished grade	Instrotek / X3500 / 718 / 3/21/2018			ABRAMS, ANDY	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
501		7/5/18	PUL17269		GP	8.0	140.0	5.4	133.0	6	95	95	DP
502		7/5/18	PUL17269		GP	8.0	140.0	7.4	132.8	6	95	95	DP
503		7/5/18	PUL17269		GP	8.0	140.0	7.9	133.1	6	95	95	DP
504		7/5/18	PUL17269		GP	8.0	140.0	8.5	138.9	6	99	95	DP
505		7/5/18	PUL17269		GP	8.0	140.0	7.8	139.1	6	99	95	DP
506		7/5/18	PUL17269		GP	8.0	140.0	5.9	134.7	6	96	95	DP
507		7/5/18	PUL17-0329	A	ML	16.0	113.0	11.4	107.5	8	95	95	DP
508		7/5/18	PUL17-0329	A	ML	16.0	113.0	12.6	107.4	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
501	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, south side of structure						2.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
502	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, 50 ft east						2.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
503	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, 100 ft east						2.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
504	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, 150 ft east						2.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
505	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, 200 ft east						2.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
506	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, north side of structure						2.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
507	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, 150 ft east						3.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
508	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, 200 ft east						3.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
509		7/5/18	PUL17269		GP	8.0	140.0	5.7	133.5	8	95	95	DP
510		7/5/18	PUL17-0329	A	ML	16.0	113.0	16.3	107.5	8	95	95	DP
511		7/5/18	PUL17269		GP	8.0	140.0	5.2	132.9	8	95	95	DP
512		7/5/18	PUL17269		GP	8.0	140.0	6.8	136.1	8	97	95	DP
513		7/9/18	PUL17-0329	A	ML	16.0	113.0	16.5	106.9	8	95	95	DP/MP
514		7/9/18	PUL17-0177	A	ML	13.5	114.5	12.5	117.0	8	102	95	DP/MP
515		7/9/18	PUL17-0177	A	ML	13.5	114.5	16.5	108.9	8	95	95	DP/MP
516		7/9/18	PUL17-0329	A	ML	16.0	113.0	15.7	108.8	8	96	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
509	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, north side of structure						3.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
510	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, 50 ft east						3.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
511	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, north side of structure						4.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
512	Backfill - Sanitary Sewer Line Trench: Waha st manhole 17, south side of structure						4.0	Ft above pipe	Troxler / 3430 / 37625 / 3/21/2018			PERSELL, JOHN	
513	Backfill - Sanitary Sewer Line Trench: West of manhole 18, 50 feet								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
514	Backfill - Sanitary Sewer Line Trench: West of manhole 18, 100 feet								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
515	Backfill - Sanitary Sewer Line Trench: West of manhole 18, 150 feet								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
516	Backfill - Sanitary Sewer Line Trench: 20feet west of manhole 18, 3 feet BGS								Instrotek / X3500 / 718 / 3/21/2018			CRESSLER, LUCAS	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP/MP: Density Pass / Moisture Pass													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
517		7/9/18	PUL17-0329	A	ML	16.0	113.0	15.0	109.4	8	97	95	DP/MP
518		7/9/18	PUL17-0329	A	ML	16.0	113.0	15.0	110.3	8	98	95	DP/MP
519		7/9/18	PUL17269		GP	8.0	140.0	7.0	132.7	8	95	95	DP/MP
520		7/9/18	PUL17-0329	A	ML	16.0	113.0	17.5	107.9	8	95	95	DP/MP
521		7/9/18	PUL17-0329	A	ML	16.0	113.0	15.0	107.7	8	95	95	DP/MP
522		7/9/18	PUL17269		GP	8.0	140.0	7.5	135.6	8	97	95	DP/MP
523		7/9/18	PUL17269		GP	8.0	140.0	7.1	132.3	8	95	95	DP/MP
524		7/10/18	PUL17-0177	A	ML	13.5	114.5	14.1	111.2	8	97	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
517	Backfill - Sanitary Sewer Line Trench: 120 feet west of manhole 18, 3 feet BGS									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
518	Backfill - Sanitary Sewer Line Trench: 170 feet west of manhole 18, 3 feet BGS									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
519	Backfill - Sanitary Sewer Line Trench: 20 feet west of manhole 17, 4 feet BGS									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
520	Backfill - Sanitary Sewer Line Trench: 20 feet east of manhole 17, 2 feet BGS									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
521	Backfill - Sanitary Sewer Line Trench: 110 feet east of manhole 17, 2 feet BGS									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
522	Backfill - Sanitary Sewer Line Trench: 110 feet east of manhole 17, 2 feet BGS									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
523	Backfill - Sanitary Sewer Line Trench: 100 feet west of manhole 17, 3 feet BGS									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
524	Backfill - Sanitary Sewer Line Trench: 30 feet east of manhole 17, 0 feet BGS									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
525		7/10/18	PUL17-0177	A	ML	13.5	114.5	14.3	111.2	8	97	95	DP/MP
526		7/10/18	PUL17269		GP	8.0	140.0	7.0	132.6	8	95	95	DP/MP
527		7/10/18	PUL17-0329	A	ML	16.0	113.0	16.9	106.8	8	95	95	DP/MP
528		7/10/18	PUL17269		GP	8.0	140.0	7.1	133.3	8	95	95	DP/MP
529		7/10/18	PUL17-0329	A	ML	16.0	113.0	17.0	106.9	8	95	95	DP/MP
530		7/10/18	PUL17269		GP	8.0	140.0	7.1	133.3	8	95	95	DP/MP
531		7/10/18	PUL17-0329	A	ML	16.0	113.0	15.5	108.9	8	96	95	DP/MP
532		7/10/18	PUL17-0329	A	ML	16.0	113.0	15.1	107.6	8	95	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
525	Backfill - Sanitary Sewer Line Trench: 30 feet east of manhole 17, 0 feet BGS									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
526	Backfill - Sanitary Sewer Line Trench: Around manhole 17, 2 feet BGS									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
527	Backfill - Sanitary Sewer Line Trench: 50 feet West of manhole 17, 3 feet BGS									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
528	Backfill - Sanitary Sewer Line Trench: 100 feet West of manhole 17, 4 feet BGS									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
529	Backfill - Sanitary Sewer Line Trench: 150 feet west of manhole 17, 2 feet BGS									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
530	Backfill - Sanitary Sewer Line Trench: Around manhole 17, 2 feet BGS									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
531	Backfill - Sanitary Sewer Line Trench: 200 feet west of manhole 17, 3 feet BGS									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
532	Backfill - Sanitary Sewer Line Trench: 50 feet west of manhole 17, 2 feet BGS									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
533		7/10/18	PUL17-0329	A	ML	16.0	113.0	15.0	107.4	8	95	95	DP/MP
534		7/10/18	PUL17-0329	A	ML	16.0	113.0	15.7	109.5	8	97	95	DP/MP
535		7/11/18	PUL17269		GP	8.0	140.0	5.7	135.0	8	96	95	DP/MF
536		7/11/18	PUL17269		GP	8.0	140.0	7.7	140.5	8	100	95	DP/MP
537		7/11/18	PUL17269		GP	8.0	140.0	6.4	136.9	8	98	95	DP/MF
538		7/11/18	PUL17269		GP	8.0	140.0	5.6	133.9	8	96	95	DP/MF
539		7/11/18	PUL17-0329	A	ML	16.0	113.0	10.8	115.0	8	102	95	DP/MF
540		7/12/18	PUL17-0329	A	ML	16.0	113.0	12.8	116.5	8	103	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
533	Backfill - Sanitary Sewer Line Trench: 200 feet west of manhole 17, 2 feet BGS									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
534	Backfill - Sanitary Sewer Line Trench: 150 feet west of manhole 17, 2 feet BGS									Instrotek / X3500 / 718 / 3/21/2018		CRESSLER, LUCAS	
535	Backfill - Utility Trench: North trench									Troxler / 3430 / 61919 / 8/31/2017		KANNENBERG, JOSHUA	
536	Backfill - Utility Trench: North trench									Troxler / 3430 / 61919 / 8/31/2017		KANNENBERG, JOSHUA	
537	Backfill - Utility Trench: North trench									Troxler / 3430 / 61919 / 8/31/2017		KANNENBERG, JOSHUA	
538	Backfill - Utility Trench: North trench									Troxler / 3430 / 61919 / 8/31/2017		KANNENBERG, JOSHUA	
539	Backfill - Utility Trench: Grade									Troxler / 3430 / 61919 / 8/31/2017		KANNENBERG, JOSHUA	
540	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 15 feet west of SD 18						4.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018		BELL, BRITTON	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP/MF: Density Pass / Moisture Fail													
DP: Density Pass													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
541		7/12/18	PUL17269		GP	8.0	140.0	7.5	135.4	8	97	95	DP
542		7/12/18	PUL17269		GP	8.0	140.0	5.8	138.7	8	99	95	DP
543		7/12/18	PUL17269		GP	8.0	140.0	7.4	138.9	8	99	95	DP
544		7/12/18	PUL17269		GP	8.0	140.0	7.1	139.8	8	100	95	DP
545		7/12/18	PUL17-0329	A	ML	16.0	113.0	14.3	108.7	8	96	95	DP
546		7/12/18	PUL17-0329	A	ML	16.0	113.0	15.2	107.3	8	95	95	DP
547		7/12/18	PUL17269		GP	8.0	140.0	7.2	132.8	8	95	95	DP
548		7/12/18	PUL17-0329	A	ML	16.0	113.0	16.5	107.3	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge			Field Technician	
541	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 5 feet east of SD 18						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
542	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 100 feet west of SD 18						4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
543	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 150 feet southwest of SD 18						4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
544	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 150 feet northwest of SD 18						4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
545	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 15 feet west of SD 18						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
546	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 35 feet northwest of SD 18						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
547	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main SD 18						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
548	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 100 feet west of SD 18						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
549		7/12/18	PUL17-0329	A	ML	16.0	113.0	12.3	108.0	8	96	95	DP
550		7/12/18	PUL17-0329	A	ML	16.0	113.0	17.3	107.3	8	95	95	DP
551		7/12/18	PUL17-0329	A	ML	16.0	113.0	17.2	106.9	8	95	95	DP
552		7/12/18	PUL17-0329	A	ML	16.0	113.0	15.3	107.6	8	95	95	DP
553		7/12/18	PUL17-0329	A	ML	16.0	113.0	15.7	109.9	8	97	95	DP
554		7/12/18	PUL17269		GP	8.0	140.0	4.4	133.0	8	95	95	DP
555		7/12/18	PUL17-0329	A	ML	16.0	113.0	14.1	109.6	8	97	95	DP
556		7/12/18	PUL17-0329	A	ML	16.0	113.0	14.1	109.6	8	97	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician
549	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 150 feet southwest of SD 18						3.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON
550	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 150 feet northwest of SD 18						3.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON
551	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 50 feet north of SD 18						2.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON
552	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 30 feet south of SD 18						2.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON
553	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 10 feet east of SD 18						2.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON
554	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main SD 18						2.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON
555	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 100 ft south of SD 18						2.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON
556	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 100 ft south of SD 18						2.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
557		7/12/18	PUL17-0329	A	ML	16.0	113.0	14.1	108.7	8	96	95	DP
558		7/12/18	PUL17-0329	A	ML	16.0	113.0	17.8	107.9	8	95	95	DP
559		7/12/18	PUL17269		GP	8.0	140.0	4.0	141.3	8	101	95	DP
560		7/12/18	PUL17269		GP	8.0	140.0	7.1	133.6	8	95	95	DP
561		7/13/18	PUL17-0329	A	ML	16.0	113.0	11.2	108.5	8	96	95	DP
562		7/13/18	PUL17-0329	A	ML	16.0	113.0	13.8	108.4	8	96	95	DP
563		7/13/18	PUL17269		GP	8.0	140.0	4.4	132.7	8	95	95	DP
564		7/13/18	PUL17-0329	A	ML	16.0	113.0	14.0	114.1	8	101	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
557	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 150 ft northwest of SD 18						2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
558	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 150 ft northwest of SD 18						2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
559	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 200 ft west of SD 18						6.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
560	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 300 ft west of SD 18						6.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
561	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 50 feet north of SD 18						0.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
562	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 20 feet west of SD 18						0.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
563	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main SD 18						2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
564	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 50 ft south of SD 18						2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
565		7/13/18	PUL17-0329	A	ML	16.0	113.0	12.6	107.5	8	95	95	DP
566		7/13/18	PUL17-0329	A	ML	16.0	113.0	15.4	108.7	8	96	95	DP
567		7/13/18	PUL17-0329	A	ML	16.0	113.0	15.2	107.6	8	95	95	DP
568		7/13/18	PUL17269		GP	8.0	140.0	7.1	126.1	8	90	95	DF
569	568	7/13/18	PUL17269		GP	8.0	140.0	8.9	134.7	8	96	95	DP
570		7/13/18	PUL17269		GP	8.0	140.0	6.1	129.8	8	93	95	DF
571		7/13/18	PUL17269		GP	8.0	140.0	6.0	125.5	8	90	95	DF
572	571	7/13/18	PUL17269		GP	8.0	140.0	6.9	132.9	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
565	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 70 ft northwest of SD 18						2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
566	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 70 ft southwest of SD 18						2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
567	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 150 ft west of SD 18						4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
568	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 100 feet east of SD 19						0.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
569	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 110 feet southeast of SD 19						6.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
570	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main Eastern SD						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
571	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main 50 ft east Eastern SD						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
572	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main 50 ft east Eastern SD						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DF: Density Fail													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
573		7/13/18	PUL17269		GP	8.0	140.0	6.1	129.2	8	92	95	DF
574	573	7/13/18	PUL17269		GP	8.0	140.0	6.1	133.5	8	95	95	DP
575	570	7/13/18	PUL17269		GP	8.0	140.0	6.0	132.4	8	95	95	DP
576		7/13/18	PUL17269		GP	8.0	140.0	5.8	128.4	8	92	95	DF
577	576	7/13/18	PUL17269		GP	8.0	140.0	5.8	128.4	8	92	95	DF
578		7/16/18	PUL17269		GP	8.0	140.0	3.5	131.0	6	94	90	DP
579		7/16/18	PUL17269		GP	8.0	140.0	4.5	133.9	6	96	90	DP
580		7/16/18	PUL17269		GP	8.0	140.0	4.8	134.8	6	96	90	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
573	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main 250 ft east Eastern SD						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
574	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main 350 ft east Eastern SD						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
575	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main 450 ft east Eastern SD						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
576	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main 500 ft east Eastern SD						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
577	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main 500 ft east Eastern SD						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
578	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 150 feet northeast of SD 19						5.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
579	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 250 feet northeast of SD 19						5.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
580	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 250 feet southeast of SD 19						5.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
Remarks					Comments								
DF: Density Fail					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP: Density Pass													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
581		7/16/18	PUL17-0329	A	ML	16.0	113.0	13.9	107.9	8	95	95	DP
582		7/16/18	PUL17-0329	A	ML	16.0	113.0	15.6	109.7	8	97	95	DP
583		7/16/18	PUL17-0329	A	ML	16.0	113.0	11.2	114.1	8	101	95	DP
584		7/16/18	PUL17-0329	A	ML	16.0	113.0	15.6	109.3	8	97	95	DP
585		7/16/18	PUL17-0329	A	ML	16.0	113.0	11.3	107.2	8	95	95	DP
586		7/16/18	PUL17-0329	A	ML	16.0	113.0	13.2	108.3	8	96	95	DP
587		7/16/18	PUL17-0329	A	ML	16.0	113.0	17.2	107.2	8	95	95	DP
588		7/16/18	PUL17-0329	A	ML	16.0	113.0	12.5	108.7	6	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician
581	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 100 feet northwest of SD 18						1.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON
582	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 100 feet west of SD 18						1.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON
583	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 30 feet north of SD 19						0.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON
584	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 50 feet west of SD 19						0.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON
585	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 50 feet northwest of SD 19						0.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON
586	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 150 feet west of SD 19						2.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON
587	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 150 feet west of SD 19						2.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON
588	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 100 feet west of SD 18						0.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
589		7/16/18	PUL17-0329	A	ML	16.0	113.0	13.5	107.4	6	95	95	DP
590		7/16/18	PUL17-0329	A	ML	16.0	113.0	14.5	107.9	6	95	95	DP
591		7/16/18	PUL17-0329	A	ML	16.0	113.0	15.2	109.1	6	97	95	DP
592		7/16/18	PUL17-0329	A	ML	16.0	113.0	15.3	107.0	6	95	95	DP
593		7/16/18	PUL17-0329	A	ML	16.0	113.0	11.2	107.5	6	95	95	DP
594		7/16/18	PUL17-0329	A	ML	16.0	113.0	14.2	108.1	6	96	95	DP
595		7/16/18	PUL17269		GP	8.0	140.0	8.0	133.3	6	95	95	DP
596		7/16/18	PUL17269		GP	8.0	140.0	6.4	132.4	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
589	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 200 feet west of SD 18						2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
590	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 200 feet northwest of SD 18						4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
591	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 200 feet southwest of SD 18						4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
592	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 300 feet southwest of SD 18						4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
593	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 300 feet southwest of SD 18						4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
594	Backfill - Sanitary Sewer Line Trench: Waha Ct Sewer Main 400 feet west of SD 18						4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
595	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 200 ft east of westernmost SD.						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
596	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 150 ft east of westernmost SD.						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

**Client:**

KIP Development  
 594 SE Bishop Boulevard, Suite 102  
 Pullman, WA 99163

**Project:**

PU17212B  
 Sundance South Subdivision  
 Sundance Court  
 Pullman, WA 99163

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
597		7/16/18	PUL17269		GP	8.0	140.0	5.8	133.7	6	96	95	DP
598		7/16/18	PUL17269		GP	8.0	140.0	5.4	134.2	6	96	95	DP
599		7/16/18	PUL17269		GP	8.0	140.0	3.9	135.4	6	97	95	DP
640	577	7/13/18	PUL17269		GP	8.0	140.0	6.3	136.3	6	97	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
597	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 100 ft east of westernmost SD.						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
598	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 50 ft east of westernmost SD.						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
599	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, SD 18						1.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
640	Backfill - Stormwater Line Trench: Waha Ct, 400 ft east of SD 5.						8.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
600		7/16/18	PUL17-0329	A	ML	16.0	113.0	14.2	108.1	6	96	95	DP
601		7/16/18	PUL17-0329	A	ML	16.0	113.0	16.4	107.9	8	95	95	DP
602		7/16/18	PUL17-0329	A	ML	16.0	113.0	16.4	106.8	6	95	95	DP
603		7/16/18	PUL17-0329	A	ML	16.0	113.0	15.2	107.9	6	95	95	DP
604		7/16/18	PUL17-0329	A	ML	16.0	113.0	15.2	107.1	6	95	95	DP
605		7/17/18	PUL17269		GP	8.0	140.0	5.7	136.0	6	97	95	DP
606		7/17/18	PUL17269		GP	8.0	140.0	4.8	137.2	6	98	95	DP
607		7/17/18	PUL17269		GP	8.0	140.0	8.1	139.8	6	100	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
600	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 10 ft south of SD 18						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
601	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 10 ft south of SD 18						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
602	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 100 ft west of SD 18						0.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
603	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 200 ft west of SD 18						1.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
604	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 300 ft west of SD 18						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
605	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 150 ft east of westernmost SD.						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
606	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 100 ft east of westernmost SD.						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
607	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 80 ft east of westernmost SD.						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
608		7/17/18	PUL17269		GP	8.0	140.0	7.2	132.7	6	95	95	DP
609		7/17/18	PUL17-0329	A	ML	16.0	113.0	11.5	107.4	8	95	95	DP
610		7/17/18	PUL17-0329	A	ML	16.0	113.0	13.9	107.6	8	95	95	DP
611		7/17/18	PUL17-0329	A	ML	16.0	113.0	17.1	107.4	8	95	95	DP
612		7/17/18	PUL17269		GP	8.0	140.0	6.5	133.1	6	95	95	DP
613		7/17/18	PUL17-0329	A	ML	16.0	113.0	17.5	107.4	8	95	95	DP
614		7/17/18	PUL17-0329	A	ML	16.0	113.0	17.5	107.4	8	95	95	DP
615		7/17/18	PUL17269		GP	8.0	140.0	6.5	134.6	6	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
608	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 50 ft east of westernmost SD.						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
609	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 100 ft east of SD 19.						0.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
610	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 200 ft east of SD 19.						0.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
611	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 300 ft east of SD 19.						0.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
612	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, westernmost SD.						4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
613	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 30 ft east of westernmost SD.						2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
614	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 30 ft east of westernmost SD.						2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
615	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, westernmost SD.						3.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
616		7/18/18	PUL17269		GP	8.0	140.0	6.4	134.1	6	96	95	DP
617		7/18/18	PUL17269		GP	8.0	140.0	6.0	133.2	6	95	95	DP
618		7/18/18	PUL17269		GP	8.0	140.0	7.0	133.9	6	96	95	DP
619		7/18/18	PUL17-0329	A	ML	16.0	113.0	13.3	109.5	8	97	95	DP
620		7/18/18	PUL17269		GP	8.0	140.0	6.1	132.7	8	95	95	DP
621		7/18/18	PUL17-0329	A	ML	16.0	113.0	17.3	107.2	8	95	95	DP
622		7/18/18	PUL17-0329	A	ML	16.0	113.0	17.5	107.2	8	95	95	DP
623		7/18/18	PUL17-0329	A	ML	16.0	113.0	11.3	107.0	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
616	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 150 ft west of SD 18						5.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
617	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 100 ft west of SD 18						5.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
618	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 50 ft west of SD 18						5.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
619	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 10 ft south of SD 19						2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
620	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, SD 19						2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
621	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 100 ft southwest of SD 19						2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
622	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 100 ft northwest of SD 19						4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
623	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 200 ft southwest of SD 19						4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
624		7/18/18	PUL17-0329	A	ML	16.0	113.0	15.6	107.6	8	95	95	DP
625		7/18/18	PUL17-0329	A	ML	16.0	113.0	16.2	107.8	8	95	95	DP
626		7/18/18	PUL17-0329	A	ML	16.0	113.0	11.3	110.8	8	98	95	DP
627		7/18/18	PUL17269		GP	8.0	140.0	6.9	133.1	8	95	95	DP
628		7/18/18	PUL17269		GP	8.0	140.0	4.0	133.9	8	96	95	DP
629		7/19/18	PUL17-0329	A	ML	16.0	113.0	15.8	107.3	6	95	95	DP
630	629	7/19/18	PUL17269		GP	8.0	140.0	8.6	132.3	8	95	95	DP
631		7/19/18	PUL17269		GP	8.0	140.0	6.2	137.8	8	98	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
624	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 200 ft northwest of SD 19						4.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018		BELL, BRITTON	
625	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 300 ft northwest of SD 19						4.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018		BELL, BRITTON	
626	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 300 ft northwest of SD 19						4.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018		BELL, BRITTON	
627	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, SD 5						6.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018		BELL, BRITTON	
628	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 10 feet north of SD 5						5.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018		BELL, BRITTON	
629	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 150 ft west of SD 18						5.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018		BELL, BRITTON	
630	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 150 ft west of SD 18						5.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018		BELL, BRITTON	
631	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 100 ft east of SD 5						5.0	Feet below grade		Troxler / 3430 / 37625 / 3/21/2018		BELL, BRITTON	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
632		7/19/18	PUL17269		GP	8.0	140.0	6.2	132.5	8	95	95	DP
633		7/19/18	PUL17269		GP	8.0	140.0	5.6	135.2	8	97	95	DP
634		7/19/18	PUL17269		GP	8.0	140.0	6.1	136.2	8	97	95	DP
635		7/19/18	PUL17269		GP	8.0	140.0	6.6	134.8	8	96	95	DP
636		7/19/18	PUL17269		GP	8.0	140.0	6.7	134.3	6	96	95	DP
637		7/19/18	PUL17-0329	A	ML	16.0	113.0	13.2	109.0	6	96	95	DP
638		7/19/18	PUL17-0329	A	ML	16.0	113.0	13.0	108.8	6	96	95	DP
639		7/19/18	PUL17269		GP	8.0	140.0	8.7	134.8	6	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
632	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 50 ft east of westernmost SD						4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
633	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 90 ft east of westernmost SD						4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
634	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 90 ft east of westernmost SD						4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
635	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 220 ft east of westernmost SD						4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
636	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 150 ft west of SD 18						4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
637	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 200 ft east of SD 5						4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
638	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 250 ft east of SD 5						4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
639	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 250 ft east of SD 5						4.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
641		7/20/18	PUL17269		GP	8.0	140.0	8.5	132.3	8	95	95	DP
642		7/20/18	PUL17269		GP	8.0	140.0	5.6	132.9	8	95	95	DP
643		7/20/18	PUL17269		GP	8.0	140.0	7.0	136.0	8	97	95	DP
644		7/20/18	PUL17269		GP	8.0	140.0	6.8	133.2	8	95	95	DP
645		7/20/18	PUL17269		GP	8.0	140.0	6.5	132.5	8	95	95	DP
646		7/20/18	PUL17-0329	A	ML	16.0	113.0	13.8	108.4	8	96	95	DP
647		7/21/18	PUL17269		GP	8.0	140.0	3.9	134.0	8	96	95	DP
648		7/21/18	PUL17-0329	A	ML	16.0	113.0	14.3	107.1	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
641	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 400 ft east of westernmost SD.						2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
642	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 450 ft east of westernmost SD.						2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
643	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 490 ft east of westernmost SD.						2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
644	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 550 ft east of westernmost SD.						2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
645	Backfill - Sanitary Sewer Line Trench: South of Waha Ct: Sewer Main, 600 ft east of westernmost SD.						2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
646	Backfill - Sanitary Sewer Line Trench: Waha Ct: Sewer Main, 150 ft east of SD 5.						2.0	Feet below grade	Troxler / 3430 / 37625 / 3/21/2018			BELL, BRITTON	
647	Backfill - Stormwater Line Trench: NW storm water MH						5.0	Belo'w subgrade	Instrotek / X3500 / 718 / 3/21/2018			ENDERSON, RICK	
648	Backfill - Stormwater Line Trench: 30 deet east of NW storm water MH						5.0	Belo'w subgrade	Instrotek / X3500 / 718 / 3/21/2018			ENDERSON, RICK	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
649		7/21/18	PUL17269		GP	8.0	140.0	7.4	133.6	8	95	95	DP
650		7/21/18	PUL17-0329	A	ML	16.0	113.0	10.7	111.2	8	98	95	DP
651		7/21/18	PUL17269		GP	8.0	140.0	5.3	133.1	8	95	95	DP
652		7/23/18	PUL17269		GP	8.0	140.0	5.2	132.3	8	95	95	DP
653		7/23/18	PUL17269		GP	8.0	140.0	3.2	133.1	8	95	95	DP
654		7/23/18	PUL17269		GP	8.0	140.0	4.1	137.6	8	98	95	DP
655		7/23/18	PUL17269		GP	8.0	140.0	3.2	132.9	8	95	95	DP
656		7/23/18	PUL17269		GP	8.0	140.0	5.1	132.4	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
649	Backfill - Stormwater Line Trench: 150 feet east of NW storm water MH						5.0	Belo'w subgrade	Instrotek / X3500 / 718 / 3/21/2018			ENDERSON, RICK	
650	Backfill - Stormwater Line Trench: 200 feet east of NW storm water MH						4.0	Belo'w subgrade	Instrotek / X3500 / 718 / 3/21/2018			ENDERSON, RICK	
651	Backfill - Stormwater Line Trench: 250 feet east of NW storm water MH						6.0	Belo'w subgrade	Instrotek / X3500 / 718 / 3/21/2018			ENDERSON, RICK	
652	Backfill - Sanitary Sewer Line Trench: Storm drinking line and laterals between SD 12 and SD 13						2.0	Above top of pipe	Instrotek / X3500 / 3524 / 6/30/2018			MAFFEY, JUSTIN	
653	Backfill - Sanitary Sewer Line Trench: Storm drinking line and laterals between SD 12 and SD 13						1.0	Above top of pipe	Instrotek / X3500 / 3524 / 6/30/2018			MAFFEY, JUSTIN	
654	Backfill - Sanitary Sewer Line Trench: Storm drinking line and laterals between SD 12 and SD 13						1.0	Above top of pipe	Instrotek / X3500 / 3524 / 6/30/2018			MAFFEY, JUSTIN	
655	Backfill - Sanitary Sewer Line Trench: Storm drinking line and laterals between SD 12 and SD 13						1.0	Above top of pipe	Instrotek / X3500 / 3524 / 6/30/2018			MAFFEY, JUSTIN	
656	Backfill - Sanitary Sewer Line Trench: Storm drinking line and laterals between SD 12 and SD 13						2.0	Above top of pipe	Instrotek / X3500 / 3524 / 6/30/2018			MAFFEY, JUSTIN	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
657		7/23/18	PUL17269		GP	8.0	140.0	3.7	133.4	8	95	95	DP
658		7/23/18	PUL17-0329	A	ML	16.0	113.0	14.4	113.5	8	100	95	DP
659		7/23/18	PUL17-0329	A	ML	16.0	113.0	15.1	110.9	8	98	95	DP
660		7/23/18	PUL17269		GP	8.0	140.0	8.2	135.1	8	97	95	DP
661		7/23/18	PUL17269		GP	8.0	140.0	11.1	132.9	8	95	95	DP
662		7/23/18	PUL17269		GP	8.0	140.0	7.7	134.4	8	96	95	DP
663		7/23/18	PUL17269		GP	8.0	140.0	3.2	132.5	8	95	95	DP
664		7/23/18	PUL17269		GP	8.0	140.0	4.8	133.2	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
657	Backfill - Sanitary Sewer Line Trench: Storm drinking line and laterals between SD 12 and SD 13						1.0	Above top of pipe	Instrotek / X3500 / 3524 / 6/30/2018			MAFFEY, JUSTIN	
658	Backfill - Sanitary Sewer Line Trench: Storm drain line 30 feet west of SD12						3.0	Above top of pipe	Instrotek / X3500 / 3524 / 6/30/2018			MAFFEY, JUSTIN	
659	Backfill - Sanitary Sewer Line Trench: Storm drain line 30 feet east of SD11						3.0	Above top of pipe	Instrotek / X3500 / 3524 / 6/30/2018			MAFFEY, JUSTIN	
660	Backfill - Utility Trench: -4						-4.0	Grade	Instrotek / X3500 / 718 / 3/21/2018			KANNENBERG, JOSHUA	
661	Backfill - Utility Trench: -4						-4.0	Grade	Instrotek / X3500 / 718 / 3/21/2018			KANNENBERG, JOSHUA	
662	Backfill - Utility Trench: -4						-4.0	Grade	Instrotek / X3500 / 718 / 3/21/2018			KANNENBERG, JOSHUA	
663	Backfill - Utility Trench: -4						-4.0	Grade	Instrotek / X3500 / 718 / 3/21/2018			KANNENBERG, JOSHUA	
664	Backfill - Utility Trench: -4						-4.0	Grade	Instrotek / X3500 / 718 / 3/21/2018			KANNENBERG, JOSHUA	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
665		7/23/18	PUL17-0329	A	ML	16.0	113.0	12.3	115.8	8	102	95	DP
666		7/23/18	PUL17-0329	A	ML	16.0	113.0	13.2	108.4	8	96	95	DP
667		7/23/18	PUL17-0329	A	ML	16.0	113.0	18.9	107.0	8	95	95	DP
668		7/23/18	PUL17-0329	A	ML	16.0	113.0	14.8	108.4	8	96	95	DP
669		7/23/18	PUL17269		GP	8.0	140.0	4.8	133.6	8	95	95	DP
670		7/23/18	PUL17269		GP	8.0	140.0	4.7	132.8	8	95	95	DP
671		7/23/18	PUL17269		GP	8.0	140.0	5.7	135.4	8	97	95	DP
672		7/23/18	PUL17-0329	A	ML	16.0	113.0	14.7	108.3	8	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
665	Backfill - Utility Trench: -4						-4.0	Grade	Instrotek / X3500 / 718 / 3/21/2018			KANNENBERG, JOSHUA	
666	Backfill - Utility Trench: -4						-4.0	Grade	Instrotek / X3500 / 718 / 3/21/2018			KANNENBERG, JOSHUA	
667	Backfill - Utility Trench: -4						-4.0	Grade	Instrotek / X3500 / 718 / 3/21/2018			KANNENBERG, JOSHUA	
668	Backfill - Utility Trench: -4						-4.0	Grade	Instrotek / X3500 / 718 / 3/21/2018			KANNENBERG, JOSHUA	
669	Backfill - Utility Trench: South utility trench						-3.0	Grade	Instrotek / X3500 / 718 / 3/21/2018			KANNENBERG, JOSHUA	
670	Backfill - Utility Trench: Golden hills man hole						-3.0	Grade	Instrotek / X3500 / 718 / 3/21/2018			KANNENBERG, JOSHUA	
671	Backfill - Utility Trench: Waha man hole						-3.0	Grade	Instrotek / X3500 / 718 / 3/21/2018			KANNENBERG, JOSHUA	
672	Backfill - Utility Trench: Middle bench west side						0.0	Grade	Instrotek / X3500 / 718 / 3/21/2018			KANNENBERG, JOSHUA	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
673		7/23/18	PUL17-0329	A	ML	16.0	113.0	13.5	107.5	8	95	95	DP
674		7/23/18	PUL17269		GP	8.0	140.0	5.5	133.7	8	96	95	DP
675		7/24/18	PUL17269		GP	8.0	140.0	5.8	135.3	8	97	95	DP
676		7/24/18	PUL17269		GP	8.0	140.0	4.6	136.0	8	97	95	DP
677		7/24/18	PUL17-0177	A	ML	13.5	114.5	15.8	110.5	8	97	95	DP
678		7/24/18	PUL17-0177	A	ML	13.5	114.5	12.4	112.7	8	98	95	DP
679		7/24/18	PUL17-0177	A	ML	13.5	114.5	13.5	109.7	8	96	95	DP
680		7/24/18	PUL17-0177	A	ML	13.5	114.5	15.1	108.3	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
673	Backfill - Utility Trench: Middle bench west side						0.0	Grade	Instrotek / X3500 / 718 / 3/21/2018			KANNENBERG, JOSHUA	
674	Backfill - Utility Trench: South trench						-5.0	Grade	Instrotek / X3500 / 718 / 3/21/2018			KANNENBERG, JOSHUA	
675	Backfill - Sanitary Sewer Line Trench: 20 away 13						2.0	Below finish base	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
676	Backfill - Stormwater Line Trench: 75 west storm drain 13						2.0	Finish base	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
677	Backfill - Stormwater Line Trench: 125 west storm drain 13						1.0	Finish base	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
678	Backfill - Stormwater Line Trench: 25 east storm drain 12						1.0	Finish base	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
679	Backfill - Stormwater Line Trench: 15 east storm drain 12						1.0	Finish base	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
680	Backfill - Stormwater Line Trench: 11 west storm drain 12						1.0	Finish base	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
681		7/24/18	PUL17269		GP	8.0	140.0	7.5	133.8	8	96	95.5	DP
682		7/24/18	PUL17269		GP	8.0	140.0	6.4	133.6	8	95	95	DP
683		7/24/18	PUL17-0177	A	ML	13.5	114.5	14.2	116.5	8	102	95	DP
684		7/24/18	PUL17-0177	A	ML	13.5	114.5	14.6	116.4	8	102	95	DP
685		7/24/18	PUL17-0177	A	ML	13.5	114.5	7.3	137.1	8	120	95	DP
686		7/24/18	PUL17269		GP	8.0	140.0	7.4	132.5	8	95	95	DP/MP
687		7/24/18	PUL17269		GP	8.0	140.0	7.5	133.1	8	95	95	DP/MP
688		7/24/18	PUL17269		GP	8.0	140.0	7.1	132.3	8	95	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge			Field Technician	
681	Backfill - Stormwater Line Trench: 1 South east storm drain 14						3.0	Finish base	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
682	Backfill - Stormwater Line Trench: 1 east storm drain 14						3.0	Finish base	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
683	Backfill - Stormwater Line Trench: 25 east storm drain 14						1.0	Finish base	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
684	Backfill - Stormwater Line Trench: 16 west storm drain 16						1.0	Finish base	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
685	Backfill - Stormwater Line Trench: 1 east storm drain 14						1.0	Finish base	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
686	Backfill - Stormwater Line Trench: 1 north storm drain 14						3.0	Base fill	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
687	Backfill - Stormwater Line Trench: 1 south east sewer 14						2.0	Base fill	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
688	Backfill - Stormwater Line Trench: 1 north sewer 14						2.0	Base fill	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP/MP: Density Pass / Moisture Pass													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
689		7/24/18	PUL17-0177	A	ML	13.5	114.5	13.9	111.3	8	97	95	DP
690		7/24/18	PUL17-0177	A	ML	13.5	114.5	17.4	108.3	8	95	95	DP
691		7/24/18	PUL17-0177	A	ML	13.5	114.5	15.5	110.6	8	97	95	DP
692		7/24/18	PUL17269		GP	8.0	140.0	6.2	132.8	6	95	95	DP
693		7/24/18	PUL17269		GP	8.0	140.0	6.5	137.7	6	98	95	DP
694		7/24/18	PUL17269		GP	8.0	140.0	6.0	134.6	8	96	95	DP
695		7/24/18	PUL17269		GP	8.0	140.0	5.1	136.2	8	97	95	DP
696		7/24/18	PUL17269		GP	8.0	140.0	5.3	132.5	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
689	Backfill - Sanitary Sewer Line Trench: Cayuse street						1.0	1 Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
690	Backfill - Sanitary Sewer Line Trench: Cayuse street						1.0	1 Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
691	Backfill - Stormwater Line Trench: Cayuse						2.0	2 below grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
692	Backfill - Stormwater Line Trench: Cayuse						2.0	2 below grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
693	Backfill - Stormwater Line Trench: Cayuse						2.0	2 below grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
694	Backfill - Sanitary Sewer Line Trench: Waha Ct west manhole						3.0	Below finish base	Instrotek / X3500 / 718 / 3/21/2018			PERSELL, JOHN	
695	Backfill - Sanitary Sewer Line Trench: Waha Ct west manhole						3.0	Below finish base	Instrotek / X3500 / 718 / 3/21/2018			PERSELL, JOHN	
696	Backfill - Sanitary Sewer Line Trench: Waha Ct west manhole						3.0	Below finish base	Instrotek / X3500 / 718 / 3/21/2018			PERSELL, JOHN	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
697		7/24/18	PUL17269		GP	8.0	140.0	8.7	133.4	8	95	95	DP
698		7/24/18	PUL17269		GP	8.0	140.0	9.6	132.8	8	95	95	DP
699		7/24/18	PUL17-0177	A	ML	13.5	114.5	18.6	104.8	8	92	95	DF
700		7/25/18	PUL17-0177	A	ML	13.5	114.5	16.5	111.6	8	97	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
697	Backfill - Sanitary Sewer Line Trench: Wallowa						10.0	10 below grade trench	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
698	Backfill - Sanitary Sewer Line Trench: Wallowa						10.0	10 below grade trench	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
699	Backfill - Sanitary Sewer Line Trench: Cayuse st						1.0	Foot below grade	Instrotek / X3500 / 1089 / 3/21/2018			PERSELL, JOHN	
700	Backfill - Sanitary Sewer Line Trench: Cayuse st						1.0	1 below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DF: Density Fail													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
701		7/25/18	PUL17-0177	A	ML	13.5	114.5	14.0	111.8	8	98	95	DP
702		7/25/18	PUL17-0177	A	ML	13.5	114.5	17.1	109.3	8	95	95	DP
703		7/25/18	PUL17-0177	A	ML	13.5	114.5	16.1	110.3	8	96	95	DP
704		7/25/18	PUL17-0177	A	ML	13.5	114.5	13.1	108.8	8	95	95	DP
705		7/25/18	PUL17269		GP	8.0	140.0	6.6	135.6	8	97	95	DP
706		7/25/18	PUL17269		GP	8.0	140.0	6.4	137.5	8	98	95	DP
707		7/25/18	PUL17269		GP	8.0	140.0	5.9	134.3	8	96	95	DP
708		7/25/18	PUL17269		GP	8.0	140.0	5.1	134.3	8	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
701	Backfill - Stormwater Line Trench: Cayuse st						1.0	1 below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
702	Backfill - Stormwater Line Trench: Cayuse st						1.0	1 below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
703	Backfill - Stormwater Line Trench: Cayuse st						1.0	1 below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
704	Backfill - Stormwater Line Trench: Cayuse st						1.0	1 below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
705	Backfill - Stormwater Line Trench: Waha ct						1.0	1 below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
706	Backfill - Stormwater Line Trench: Waha ct						1.0	1 below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
707	Backfill - Stormwater Line Trench: Waha ct						1.5	1.5 below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
708	Backfill - Stormwater Line Trench: Waha ct						1.5	1.5 below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
709		7/25/18	PUL17269		GP	8.0	140.0	7.1	136.3	8	97	95	DP
710		7/25/18	PUL17269		GP	8.0	140.0	5.7	137.2	8	98	95	DP
711		7/25/18	PUL17269		GP	8.0	140.0	7.8	132.6	8	95	95	DP
712		7/25/18	PUL17269		GP	8.0	140.0	9.6	136.5	8	98	95	DP
713		7/25/18	PUL17269		GP	8.0	140.0	6.8	134.0	8	96	95	DP
714		7/25/18	PUL17269		GP	8.0	140.0	6.0	134.3	8	96	95	DP
715		7/25/18	PUL17269		GP	8.0	140.0	6.0	136.9	8	98	95	DP
716		7/25/18	PUL17269		GP	8.0	140.0	6.3	134.5	8	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
709	Backfill - Sanitary Sewer Line Trench: 2nd manhole from west on cayuse st						3.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018			PERSELL, JOHN	
710	Backfill - Sanitary Sewer Line Trench: 2nd manhole from west on cayuse st						3.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018			PERSELL, JOHN	
711	Backfill - Sanitary Sewer Line Trench: 3rd manhole from west on cayuse st						3.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018			PERSELL, JOHN	
712	Backfill - Sanitary Sewer Line Trench: 3rd manhole from west on cayuse st						3.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018			PERSELL, JOHN	
713	Backfill - Sanitary Sewer Line Trench: East manhole on cayuse st						3.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018			PERSELL, JOHN	
714	Backfill - Sanitary Sewer Line Trench: East manhole on cayuse st						3.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018			PERSELL, JOHN	
715	Backfill - Sanitary Sewer Line Trench: 2nd manhole from west Waha Ct						1.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018			PERSELL, JOHN	
716	Backfill - Sanitary Sewer Line Trench: 2nd manhole from west Waha Ct						1.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018			PERSELL, JOHN	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
717		7/25/18	PUL17-0177	A	ML	13.5	114.5	16.7	110.5	8	97	95	DP
718		7/25/18	PUL17-0177	A	ML	13.5	114.5	12.9	111.1	8	97	95	DP
719		7/25/18	PUL17-0177	A	ML	13.5	114.5	17.3	109.3	8	95	95	DP
720		7/25/18	PUL17-0177	A	ML	13.5	114.5	14.2	109.0	8	95	95	DP
721		7/25/18	PUL17-0177	A	ML	13.5	114.5	13.8	109.7	8	96	95	DP
722		7/25/18	PUL17269		GP	8.0	140.0	6.5	138.6	8	99	95	DP
723		7/25/18	PUL17269		GP	8.0	140.0	6.7	134.9	8	96	95	DP
724		7/25/18	PUL17269		GP	8.0	140.0	5.1	134.2	8	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
717	Backfill - Sanitary Sewer Line Trench: Waha Ct, 5th service line from west, north side						1.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018			PERSELL, JOHN	
718	Backfill - Sanitary Sewer Line Trench: Waha Ct, 3rd service line from west, south side						1.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018			PERSELL, JOHN	
719	Backfill - Sanitary Sewer Line Trench: Waha Ct, 5th service line from west, south side						1.0	Ft below grade	Instrotek / X3500 / 1089 / 3/21/2018			PERSELL, JOHN	
720	Backfill - Stormwater Line Trench: Cayuse st						1.0	Below subgrade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
721	Backfill - Stormwater Line Trench: Cayuse st						1.0	Below subgrade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
722	Backfill - Stormwater Line Trench: Cayuse st						1.0	Below subgrade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
723	Backfill - Stormwater Line Trench: Cayuse st						1.0	Below subgrade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
724	Backfill - Stormwater Line Trench: Cayuse st						1.0	Below subgrade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
725		7/25/18	PUL17269		GP	8.0	140.0	7.2	132.6	8	95	95	DP
726		7/25/18	PUL17269		GP	8.0	140.0	6.6	132.4	8	95	95	DP
727		7/25/18	PUL17269		GP	8.0	140.0	7.6	134.4	8	96	95	DP
728		7/25/18	PUL17269		GP	8.0	140.0	8.1	136.5	8	98	95	DP
729		7/25/18	PUL17269		GP	8.0	140.0	5.6	134.1	8	96	95	DP
730		7/25/18	PUL17-0177	A	ML	13.5	114.5	15.6	112.0	8	98	95	DP
731		7/26/18	PUL17269		GP	8.0	140.0	7.4	136.1	8	97	95	DP
732		7/26/18	PUL17-0177	A	ML	13.5	114.5	14.6	110.6	8	97	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
725	Backfill - Stormwater Line Trench: Cayuse st						1.0	Below subgrade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
726	Backfill - Stormwater Line Trench: Cayuse st						1.0	Below subgrade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
727	Backfill - Stormwater Line Trench: Cayuse st						1.0	Below subgrade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
728	Backfill - Stormwater Line Trench: Cayuse st						1.0	Below subgrade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
729	Backfill - Stormwater Line Trench: Cayuse st						1.0	Below sub grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
730	Backfill - Stormwater Line Trench: Cayuse st						1.0	Below sub grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
731	Backfill - Stormwater Line Trench: Cayuse st						3.0	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
732	Backfill - Stormwater Line Trench: Cayuse st						1.0	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
733		7/26/18	PUL17-0177	A	ML	13.5	114.5	16.4	110.9	8	97	95	DP
734	699	7/25/18	PUL17-0177	A	ML	13.5	114.5	12.5	119.3	8	104	95	DP
735		7/26/18	PUL17-0177	A	ML	13.5	114.5	7.2	115.7	8	101	95	DP
736		7/26/18	PUL17-0177	A	ML	13.5	114.5	17.1	108.6	8	95	95	DP
737		7/26/18	PUL17-0177	A	ML	13.5	114.5	19.0	108.3	8	95	95	DP
738		7/26/18	PUL17269		GP	8.0	140.0	8.0	134.0	8	96	95	DP
739		7/26/18	PUL17269		GP	8.0	140.0	8.0	132.6	8	95	95	DP
740		7/26/18	PUL17269		GP	8.0	140.0	7.3	134.1	8	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
733	Backfill - Stormwater Line Trench: Cayuse st						1.0	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
734	Backfill - Sanitary Sewer Line Trench: Cayuse st						1.0	Foot below grade	Instrotek / X3500 / 718 / 3/21/2018			BJORNBERG, BRENT	
735	Backfill - Utility Trench: Cayuse st						0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
736	Backfill - Utility Trench: Cayuse st						0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
737	Backfill - Utility Trench: Cayuse st						0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
738	Backfill - Utility Trench: Cayuse st						0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
739	Backfill - Utility Trench: Cayuse st						0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
740	Backfill - Utility Trench: Cayuse st						0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
741		7/26/18	PUL17-0177	A	ML	13.5	114.5	12.5	109.2	8	95	95	DP
742		7/26/18	PUL17-0177	A	ML	13.5	114.5	14.0	109.1	8	95	95	DP
743		7/26/18	PUL17-0177	A	ML	13.5	114.5	8.9	108.3	8	95	95	DP
744		7/26/18	PUL17-0177	A	ML	13.5	114.5	13.2	108.9	8	95	95	DP
745		7/26/18	PUL17-0177	A	ML	13.5	114.5	13.5	109.1	8	95	95	DP
746		7/27/18	PUL17-0177	A	ML	13.5	114.5	7.2	109.4	8	96	95	DP
747		7/27/18	PUL17-0177	A	ML	13.5	114.5	12.4	108.7	8	95	95	DP
748		7/27/18	PUL17-0177	A	ML	13.5	114.5	12.5	108.9	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
741	Backfill - Utility Trench: Cayuse st						0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
742	Backfill - Utility Trench: Cayuse st						0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
743	Backfill - Utility Trench: Cayuse st						0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
744	Backfill - Utility Trench: Cayuse st						0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
745	Backfill - Utility Trench: Cayuse st						0.5	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
746	Backfill - Utility Trench: Cayuse st						1.0	Below sub grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
747	Backfill - Utility Trench: Cayuse st						1.0	Below sub grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
748	Backfill - Utility Trench: Cayuse st						1.0	Below sub grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
749		7/27/18	PUL17-0177	A	ML	13.5	114.5	10.9	111.2	8	97	95	DP
750		7/27/18	PUL17-0177	A	ML	13.5	114.5	16.9	108.6	8	95	95	DP
751		7/27/18	PUL17-0177	A	ML	13.5	114.5	11.2	109.1	8	95	95	DP
752		7/27/18	PUL17-0177	A	ML	13.5	114.5	15.6	108.7	8	95	95	DP
753		7/27/18	PUL17-0177	A	ML	13.5	114.5	10.7	112.7	8	98	95	DP
754		7/27/18	PUL17-0177	A	ML	13.5	114.5	11.0	109.8	8	96	95	DP
755		7/27/18	PUL17269		GP	8.0	140.0	6.2	136.2	8	97	95	DP
756		7/27/18	PUL17269		GP	8.0	140.0	5.2	133.8	8	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
749	Backfill - Utility Trench: Cayuse st						1.0	Below sub grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
750	Backfill - Utility Trench: Cayuse st						1.0	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
751	Backfill - Utility Trench: Cayuse st						1.0	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
752	Backfill - Utility Trench: Cayuse st						1.0	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
753	Backfill - Utility Trench: Cayuse st						1.0	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
754	Backfill - Utility Trench: Cayuse st						1.0	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
755	Backfill - Utility Trench: Palawa st						4.0	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
756	Backfill - Utility Trench: Palawa st						4.0	Below grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
757		7/30/18	PUL17269		GP	8.0	140.0	5.6	132.6	8	95	95	DP
758		7/30/18	PUL17269		GP	8.0	140.0	4.7	135.7	8	97	95	DP
759		7/30/18	PUL17269		GP	8.0	140.0	5.5	138.9	8	99	95	DP
760		7/30/18	PUL17269		GP	8.0	140.0	3.9	133.7	8	96	95	DP
761		7/30/18	PUL17269		GP	8.0	140.0	6.1	134.5	8	96	95	DP
762		7/30/18	PUL17269		GP	8.0	140.0	5.5	140.9	8	101	95	DP
763		7/30/18	PUL17269		GP	8.0	140.0	4.1	134.1	8	96	95	DP
764		7/30/18	PUL17269		GP	8.0	140.0	6.0	136.5	8	98	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
757	Backfill - Stormwater Line Trench: Wallowa st						8.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
758	Backfill - Stormwater Line Trench: Wallowa st						8.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
759	Backfill - Stormwater Line Trench: Wallowa st						8.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
760	Backfill - Stormwater Line Trench: Wallowa st						8.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
761	Backfill - Stormwater Line Trench: Wallowa st						8.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
762	Backfill - Stormwater Line Trench: Wallowa st						8.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
763	Backfill - Stormwater Line Trench: Wallowa st						8.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
764	Backfill - Stormwater Line Trench: Wallowa st						8.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
765		7/30/18	PUL17269		GP	8.0	140.0	8.5	133.5	8	95	95	DP
766		7/30/18	PUL17269		GP	8.0	140.0	10.1	133.0	8	95	95	DP
767		7/30/18	PUL17269		GP	8.0	140.0	8.7	132.8	8	95	95	DP
768		7/30/18	PUL17269		GP	8.0	140.0	6.4	134.2	8	96	95	DP
769		7/30/18	PUL17269		GP	8.0	140.0	7.0	132.6	8	95	95	DP
770		7/30/18	PUL17269		GP	8.0	140.0	8.4	135.6	8	97	95	DP
771		7/30/18	PUL17-0177	A	ML	13.5	114.5	14.1	111.9	8	98	95	DP
772		7/30/18	PUL17269		GP	8.0	140.0	6.5	132.9	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
765	Backfill - Stormwater Line Trench: Wallowa st						8.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
766	Backfill - Stormwater Line Trench: Wallowa st						8.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
767	Backfill - Stormwater Line Trench: Wallowa st						8.0	Below finish base	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
768	Backfill - Stormwater Line Trench: Wallowa st						8.0	Below finish base	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
769	Backfill - Stormwater Line Trench: Wallowa st						8.0	Below finish base	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
770	Backfill - Stormwater Line Trench: Wallowa st						8.0	Below finish base	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
771	Backfill - Stormwater Line Trench: Wallowa st						3.0	Below finish base	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
772	Backfill - Stormwater Line Trench: Wallowa st						3.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
773		7/30/18	PUL17269		GP	8.0	140.0	7.5	134.3	8	96	95	DP
774		7/30/18	PUL17269		GP	8.0	140.0	7.1	138.3	8	99	95	DP
775		7/30/18	PUL17269		GP	8.0	140.0	8.4	135.2	6	97	95	DP
776		7/30/18	PUL17-0177	A	ML	13.5	114.5	15.5	108.6	6	95	95	DP
777		7/30/18	PUL17-0177	A	ML	13.5	114.5	12.1	109.9	6	96	95	DP
778		7/30/18	PUL17-0177	A	ML	13.5	114.5	12.1	108.7	8	95	95	DP
779		7/31/18	PUL17269		GP	8.0	140.0	6.8	139.1	8	99	95	DP
780		7/31/18	PUL17269		GP	8.0	140.0	6.2	134.9	8	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
773	Backfill - Stormwater Line Trench: Wallowa st						3.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
774	Backfill - Utility Trench: Cayuse st						3.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
775	Backfill - Utility Trench: Cayuse st						3.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
776	Backfill - Utility Trench: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
777	Backfill - Utility Trench: Cayuse st						0.0	At finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
778	Backfill - Utility Trench: Cayuse st						0.0	At finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
779	Backfill - Stormwater Line Trench: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
780	Backfill - Stormwater Line Trench: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
781		7/31/18	PUL17269		GP	8.0	140.0	6.1	132.9	8	95	95	DP
782		7/31/18	PUL17269		GP	8.0	140.0	7.2	133.1	8	95	95	DP
783		7/31/18	PUL17269		GP	8.0	140.0	6.3	133.9	8	96	95	DP
784		7/31/18	PUL17269		GP	8.0	140.0	6.8	139.6	8	100	95	DP
785		7/31/18	PUL17269		GP	8.0	140.0	5.1	132.5	8	95	95	DP
786		7/31/18	PUL17269		GP	8.0	140.0	6.2	133.1	8	95	95	DP
787		8/1/18	PUL17269		GP	8.0	140.0	6.0	137.8	8	98	95	DP
788		8/1/18	PUL17269		GP	8.0	140.0	6.1	136.7	8	98	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
781	Backfill - Utility Trench: Wallowa st						5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
782	Backfill - Utility Trench: Wallowa st						5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
783	Backfill - Utility Trench: Wallowa st						5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
784	Backfill - Utility Trench: Wallowa st						5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
785	Backfill - Utility Trench: Wallowa st						5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
786	Backfill - Utility Trench: Wallowa st						5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
787	Backfill - Stormwater Line Trench: Wallowa st						3.5	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
788	Backfill - Stormwater Line Trench: Wallowa st						3.5	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
789		8/1/18	PUL17-0177	A	ML	13.5	114.5	12.5	109.9	8	96	95	DP
790		8/1/18	PUL17-0177	A	ML	13.5	114.5	12.5	113.4	8	99	95	DP
791		8/1/18	PUL17-0177	A	ML	13.5	114.5	11.9	113.3	6	99	95	DP
792		8/1/18	PUL17-0177	A	ML	13.5	114.5	11.5	109.8	6	96	95	DP
793		8/1/18	PUL17269		GP	8.0	140.0	7.2	137.5	8	98	95	DP
794		8/1/18	PUL17269		GP	8.0	140.0	7.6	136.5	8	98	95	DP
795		8/1/18	PUL17269		GP	8.0	140.0	8.2	137.5	8	98	95	DP
796		8/1/18	PUL17269		GP	8.0	140.0	8.3	136.2	8	97	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
789	Backfill - Stormwater Line Trench: Wallowa st						5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
790	Backfill - Stormwater Line Trench: Wallowa st						5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
791	Backfill - Waterline Trench: trench second row up								Instrotek / X3500 / 3524 / 6/30/2018			SAUL, NICK	
792	Backfill - Waterline Trench: trench second row up								Instrotek / X3500 / 3524 / 6/30/2018			SAUL, NICK	
793	Backfill - Stormwater Line Trench: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
794	Backfill - Stormwater Line Trench: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
795	Backfill - Stormwater Line Trench: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
796	Backfill - Stormwater Line Trench: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
797		8/1/18	PUL17269		GP	8.0	140.0	6.8	135.8	8	97	95	DP
798		8/2/18	PUL17-0177	A	ML	13.5	114.5	10.5	110.4	6	96	95	DP
799		8/2/18	PUL17-0177	A	ML	13.5	114.5	12.0	108.8	6	95	95	DP
800		8/2/18	PUL17269		GP	8.0	140.0	5.5	133.2	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
797	Backfill - Stormwater Line Trench: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
798	Backfill - Stormwater Line Trench: Wallowa st						7.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
799	Backfill - Stormwater Line Trench: Wallowa st						7.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
800	Backfill - Stormwater Line Trench: Wallowa st						3.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
801		8/2/18	PUL17269		GP	8.0	140.0	6.3	133.3	6	95	95	DP
802		8/2/18	PUL17-0177	A	ML	13.5	114.5	14.7	108.4	8	95	95	DP
803		8/2/18	PUL17-0177	A	ML	13.5	114.5	10.3	108.5	6	95	95	DP
804		8/2/18	PUL17-0177	A	ML	13.5	114.5	12.7	109.5	6	96	95	DP
805		8/2/18	PUL17-0177	A	ML	13.5	114.5	15.1	109.6	6	96	95	DP
806		8/2/18	PUL17269		GP	8.0	140.0	3.8	133.1	6	95	95	DP
807		8/2/18	PUL17269		GP	8.0	140.0	6.9	134.1	6	96	95	DP
808		8/2/18	PUL17-0177	A	ML	13.5	114.5	16.0	108.9	8	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
801	Backfill - Stormwater Line Trench: Wallowa st						3.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
802	Backfill - Stormwater Line Trench: Wallowa st						5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
803	Backfill - Stormwater Line Trench: Wallowa st						5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
804	Backfill - Stormwater Line Trench: Wallowa st						5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
805	Backfill - Stormwater Line Trench: Wallowa st						5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
806	Backfill - Stormwater Line Trench: Wallowa st						5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
807	Backfill - Stormwater Line Trench: Wallowa st						2.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
808	Backfill - Stormwater Line Trench: Wallowa st						5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
809		8/2/18	PUL17-0177	A	ML	13.5	114.5	9.7	109.5	6	96	95	DP
810		8/2/18	PUL17-0177	A	ML	13.5	114.5	16.4	108.8	6	95	95	DP
811		8/2/18	PUL17-0177	A	ML	13.5	114.5	11.7	110.1	6	96	95	DP
812		8/2/18	PUL17-0177	A	ML	13.5	114.5	12.7	110.3	6	96	95	DP
813		8/3/18	PUL17-0177	A	ML	13.5	114.5	15.8	108.9	6	95	95	DP
814		8/3/18	PUL17-0177	A	ML	13.5	114.5	12.8	109.1	6	95	95	DP
815		8/3/18	PUL17-0177	A	ML	13.5	114.5	9.7	109.3	6	95	95	DP
816		8/3/18	PUL17-0177	A	ML	13.5	114.5	11.8	108.8	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
809	Backfill - Stormwater Line Trench: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
810	Backfill - Stormwater Line Trench: Wallowa st						5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
811	Backfill - Stormwater Line Trench: Wallowa st						4.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
812	Backfill - Stormwater Line Trench: Wallowa st						4.5	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
813	Backfill - Stormwater Line Trench: Wallowa st						4.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
814	Backfill - Stormwater Line Trench: Wallowa st						4.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
815	Backfill - Stormwater Line Trench: Wallowa st						4.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
816	Backfill - Stormwater Line Trench: Wallowa st						4.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
817		8/3/18	PUL17-0177	A	ML	13.5	114.5	8.3	117.8	6	103	95	DP
818		8/3/18	PUL17-0177	A	ML	13.5	114.5	11.0	110.4	6	96	95	DP
819		8/3/18	PUL17-0177	A	ML	13.5	114.5	6.5	108.5	6	95	95	DP
820		8/3/18	PUL17-0177	A	ML	13.5	114.5	7.9	108.5	6	95	95	DP
821		8/3/18	PUL17269		GP	8.0	140.0	6.1	134.6	6	96	95	DP
822		8/3/18	PUL17269		GP	8.0	140.0	5.5	134.2	6	96	95	DP
823		8/3/18	PUL17-0177	A	ML	13.5	114.5	12.6	109.9	6	96	95	DP
824		8/3/18	PUL17-0177	A	ML	13.5	114.5	9.5	108.7	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
817	Backfill - Stormwater Line Trench: Wallowa st						3.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
818	Backfill - Stormwater Line Trench: Wallowa st						4.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
819	Backfill - Stormwater Line Trench: Wallowa st						4.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
820	Backfill - Stormwater Line Trench: Wallowa st						4.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
821	Backfill - Stormwater Line Trench: Wallowa st						7.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
822	Backfill - Stormwater Line Trench: Wallowa st						7.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
823	Backfill - Stormwater Line Trench: Wallowa st						4.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
824	Backfill - Stormwater Line Trench: Wallowa st						3.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
825		8/3/18	PUL17-0177	A	ML	13.5	114.5	7.6	110.0	6	96	95	DP
826		8/3/18	PUL17-0177	A	ML	13.5	114.5	10.7	108.5	6	95	95	DP
827		8/3/18	PUL17-0177	A	ML	13.5	114.5	14.4	112.0	6	98	95	DP
828		8/6/18	PUL17-0177	A	ML	13.5	114.5	15.7	108.4	6	95	95	DP
829		8/6/18	PUL17-0177	A	ML	13.5	114.5	12.6	108.5	6	95	95	DP
830		8/6/18	PUL17-0177	A	ML	13.5	114.5	13.8	109.8	6	96	95	DP
831		8/6/18	PUL17269		GP	8.0	140.0	7.3	132.3	6	95	95	DP
832		8/6/18	PUL17269		GP	8.0	140.0	6.6	132.4	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
825	Backfill - Stormwater Line Trench: Wallowa st						5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
826	Backfill - Stormwater Line Trench: Wallowa st						2.5	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
827	Backfill - Stormwater Line Trench: Wallowa st						2.5	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
828	Backfill - Stormwater Line Trench: Wallowa st						2.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
829	Backfill - Stormwater Line Trench: Wallowa st						2.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
830	Backfill - Stormwater Line Trench: Wallowa st						5.0	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
831	Backfill - Stormwater Line Trench: Wallowa st						6.5	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
832	Backfill - Stormwater Line Trench: Wallowa st						6.5	Below finish grade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
833		8/6/18	PUL17269		GP	8.0	140.0	5.7	132.6	6	95	95	DP
834		8/6/18	PUL17-0177	A	ML	13.5	114.5	12.7	108.6	6	95	95	DP
835		8/6/18	PUL17269		GP	8.0	140.0	9.3	133.4	6	95	95	DP
836		8/6/18	PUL17269		GP	8.0	140.0	7.3	137.2	6	98	95	DP
837		8/6/18	PUL17-0177	A	ML	13.5	114.5	14.7	108.8	6	95	95	DP
838		8/6/18	PUL17-0177	A	ML	13.5	114.5	11.3	108.7	6	95	95	DP
839		8/6/18	PUL17269		GP	8.0	140.0	8.0	134.7	6	96	95	DP
840		8/7/18	PUL17269		GP	8.0	140.0	5.0	135.4	6	97	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
833	Backfill - Stormwater Line Trench: Wallowa st						6.5	Below finish grade		Instrotek / X3500 / 718 / 3/21/2018		PAULSEN, ZACH	
834	Backfill - Stormwater Line Trench: Wallowa st						4.0	Below finish grade		Instrotek / X3500 / 718 / 3/21/2018		PAULSEN, ZACH	
835	Backfill - Stormwater Line Trench: Wallowa st						7.0	Below finish grade		Instrotek / X3500 / 718 / 3/21/2018		PAULSEN, ZACH	
836	Backfill - Stormwater Line Trench: Wallowa st						7.0	Below finish grade		Instrotek / X3500 / 718 / 3/21/2018		PAULSEN, ZACH	
837	Backfill - Stormwater Line Trench: Wallowa st						5.0	Below finish grade		Instrotek / X3500 / 718 / 3/21/2018		PAULSEN, ZACH	
838	Backfill - Stormwater Line Trench: Wallowa st						4.5	Below finish grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
839	Backfill - Stormwater Line Trench: Wallowa st						7.0	Below finish grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
840	Backfill - Waterline Trench: Wallowa st						6.5	Below finish grade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
841		8/7/18	PUL17269		GP	8.0	140.0	6.9	132.8	6	95	95	DP
842		8/8/18	PUL17269		GP	8.0	140.0	6.4	142.1	6	101	95	DP
843		8/9/18	PUL17269		GP	8.0	140.0	5.5	139.4	6	100	95	DP
844		8/9/18	PUL17269		GP	8.0	140.0	6.4	135.6	6	97	95	DP
845		8/9/18	PUL17269		GP	8.0	140.0	6.3	136.6	6	98	95	DP
846		8/9/18	PUL17269		GP	8.0	140.0	5.5	132.8	6	95	95	DP
847		8/9/18	PUL17269		GP	8.0	140.0	5.1	136.5	6	98	95	DP
848		8/9/18	PUL17269		GP	8.0	140.0	7.2	132.8	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
841	Backfill - Waterline Trench: Wallowa st						6.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
842	Backfill - Utility Trench: Wallowa st west side						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
843	Backfill - Utility Trench: Wallowa st. West side 1st trench						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
844	Backfill - Utility Trench: Wallowa st. West side 3rd trench						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
845	Backfill - Utility Trench: Wallowa st. West side 4th trench						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
846	Backfill - Utility Trench: Wallowa st. West side 5th trench						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
847	Backfill - Utility Trench: Wallowa st. East side 1st trench						7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
848	Backfill - Utility Trench: Wallowa st east side of trench 3rd trench						7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
849		8/9/18	PUL17269		GP	8.0	140.0	5.1	132.5	6	95	95	DP
850		8/9/18	PUL17269		GP	8.0	140.0	6.5	134.8	6	96	95	DP
851		8/9/18	PUL17269		GP	8.0	140.0	5.6	132.9	6	95	95	DP
852		8/10/18	PUL17269		GP	8.0	140.0	6.6	138.1	6	99	95	DP
853		8/10/18	PUL17269		GP	8.0	140.0	7.3	141.4	6	101	95	DP
854		8/10/18	PUL17269		GP	8.0	140.0	7.7	137.4	6	98	95	DP
855		8/10/18	PUL17269		GP	8.0	140.0	4.7	136.1	6	97	95	DP
856		8/10/18	PUL17269		GP	8.0	140.0	5.2	133.5	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
849	Backfill - Utility Trench: Wallowa st west side of trench						7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
850	Backfill - Utility Trench: Wallowa st west side of trench						7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
851	Backfill - Utility Trench: Wallowa st west side of trench						7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
852	Backfill - Utility Trench: East side of trench on wallowa st						7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
853	Backfill - Utility Trench: East side of trench on wallowa st						7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
854	Backfill - Utility Trench: East side of trench on wallowa st						7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
855	Backfill - Utility Trench: East side of trench wallowa st						7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
856	Backfill - Utility Trench: East side of trench wallowa st						7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
857		8/10/18	PUL17269		GP	8.0	140.0	4.3	135.7	4	97	95	DP
858		8/10/18	PUL17269		GP	8.0	140.0	8.0	137.3	4	98	95	DP
859		8/10/18	PUL17269		GP	8.0	140.0	7.9	138.7	4	99	95	DP
860		8/11/18	PUL17-0177	A	ML	13.5	114.5	17.7	109.2	8	95	95	DP
861		8/11/18	PUL17-0177	A	ML	13.5	114.5	17.0	108.5	6	95	95	DP
862		8/11/18	PUL17-0177	A	ML	13.5	114.5	17.1	110.7	6	97	95	DP
863		8/11/18	PUL17-0177	A	ML	13.5	114.5	18.5	108.3	6	95	95	DP
864		8/11/18	PUL17-0177	A	ML	13.5	114.5	14.0	113.2	6	99	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
857	Backfill - Utility Trench: East side of trench wallowa st						7.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
858	Backfill - Utility Trench: East side of trench wallowa st						4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
859	Backfill - Utility Trench: East side of trench wallowa st						4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
860	Fill - Subgrade: Umatilla st						8.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
861	Fill - Subgrade: Umatilla st						8.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
862	Fill - Subgrade: Umatilla st						8.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
863	Fill - Subgrade: Umatilla st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
864	Fill - Subgrade: Umatilla st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
865		8/11/18	PUL17-0177	A	ML	13.5	114.5	16.0	109.7	6	96	95	DP
866		8/11/18	PUL17-0177	A	ML	13.5	114.5	15.1	109.0	6	95	95	DP
867		8/11/18	PUL17-0177	A	ML	13.5	114.5	17.7	109.3	6	95	95	DP
868		8/11/18	PUL17-0177	A	ML	13.5	114.5	17.0	108.8	6	95	95	DP
869		8/11/18	PUL17-0177	A	ML	13.5	114.5	16.2	111.3	6	97	95	DP
870		8/11/18	PUL17-0177	A	ML	13.5	114.5	16.6	111.0	6	97	95	DP
871		8/11/18	PUL17-0177	A	ML	13.5	114.5	16.3	109.7	6	96	95	DP
872		8/11/18	PUL17-0177	A	ML	13.5	114.5	16.3	108.9	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
865	Fill - Subgrade: Umatilla st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
866	Fill - Subgrade: Umatilla st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
867	Fill - Subgrade: Umatilla st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
868	Fill - Subgrade: Umatilla st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
869	Fill - Subgrade: Umatilla st						4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
870	Fill - Subgrade: Umatilla st						4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
871	Fill - Subgrade: Umatilla st						4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
872	Fill - Subgrade: Umatilla st						4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
873		8/11/18	PUL17-0177	A	ML	13.5	114.5	14.9	108.4	6	95	95	DP
874		8/11/18	PUL17-0177	A	ML	13.5	114.5	16.3	109.0	6	95	95	DP
875		8/13/18	PUL17-0177	A	ML	13.5	114.5	13.9	109.4	6	96	95	DP
876		8/13/18	PUL17-0177	A	ML	13.5	114.5	11.5	108.4	6	95	95	DP
877		8/13/18	PUL17269		GP	8.0	140.0	6.1	133.4	6	95	95	DP
878		8/13/18	PUL17269		GP	8.0	140.0	5.6	133.7	6	96	95	DP
879		8/13/18	PUL17269		GP	8.0	140.0	7.0	135.0	6	96	95	DP
880		8/13/18	PUL17-0177	A	ML	13.5	114.5	14.3	111.2	6	97	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
873	Fill - Subgrade: Umatilla st						4.0	Below finish grade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
874	Fill - Subgrade: Umatilla st						4.0	Below finish grade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
875	Backfill - Utility Trench: Wallowa st east side of trench						4.0	Below finish grade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
876	Backfill - Utility Trench: Wallowa st east side of trench						4.0	Below finish grade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
877	Backfill - Utility Trench: Wallowa st						2.5	Below finish grade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
878	Backfill - Utility Trench: Wallowa st						6.0	Below finish grade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
879	Backfill - Utility Trench: Wallowa st						2.5	Below finish grade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
880	Fill - Subgrade: Umatilla st						3.0	Below finish grade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
881		8/13/18	PUL17-0177	A	ML	13.5	114.5	17.3	109.7	6	96	95	DP
882		8/13/18	PUL17-0177	A	ML	13.5	114.5	12.5	108.3	6	95	95	DP
883		8/13/18	PUL17-0177	A	ML	13.5	114.5	10.8	110.1	6	96	95	DP
884		8/13/18	PUL17-0177	A	ML	13.5	114.5	15.7	108.8	6	95	95	DP
885		8/13/18	PUL17-0177	A	ML	13.5	114.5	14.5	111.0	6	97	95	DP
886		8/13/18	PUL17-0177	A	ML	13.5	114.5	16.2	109.3	6	95	95	DP
887		8/13/18	PUL17-0177	A	ML	13.5	114.5	15.3	108.4	6	95	95	DP
888		8/13/18	PUL17-0177	A	ML	13.5	114.5	11.8	108.8	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
881	Fill - Subgrade: Umatilla st						3.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
882	Fill - Subgrade: Umatilla st						3.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
883	Fill - Subgrade: Umatilla st						3.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
884	Fill - Subgrade: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
885	Fill - Subgrade: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
886	Fill - Subgrade: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
887	Fill - Subgrade: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
888	Fill - Subgrade: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
889		8/13/18	PUL17-0177	A	ML	13.5	114.5	11.7	114.5	6	100	95	DP
890		8/13/18	PUL17-0177	A	ML	13.5	114.5	14.1	109.3	6	95	95	DP
891		8/13/18	PUL17-0177	A	ML	13.5	114.5	14.9	108.9	6	95	95	DP
892		8/13/18	PUL17-0177	A	ML	13.5	114.5	17.0	112.5	6	98	95	DP
893		8/13/18	PUL17-0177	A	ML	13.5	114.5	17.1	109.5	6	96	95	DP
894		8/13/18	PUL17-0177	A	ML	13.5	114.5	15.7	114.4	6	100	95	DP
895		8/13/18	PUL17-0177	A	ML	13.5	114.5	14.9	109.2	6	95	95	DP
896		8/13/18	PUL17-0177	A	ML	13.5	114.5	13.1	113.3	6	99	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
889	Fill - Subgrade: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
890	Fill - Subgrade: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
891	Fill - Subgrade: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
892	Fill - Subgrade: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
893	Fill - Subgrade: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
894	Fill - Subgrade: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
895	Fill - Subgrade: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
896	Fill - Subgrade: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
897		8/13/18	PUL17-0177	A	ML	13.5	114.5	12.8	108.5	6	95	95	DP
898		8/13/18	PUL17-0177	A	ML	13.5	114.5	15.5	110.8	6	97	95	DP
899		8/14/18	PUL17-0177	A	ML	13.5	114.5	14.2	109.0	6	95	95	DP
900		8/14/18	PUL17-0177	A	ML	13.5	114.5	14.0	108.9	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
897	Fill - Subgrade: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
898	Fill - Subgrade: Wallowa st						6.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
899	Backfill - Utility Trench: Wallowa st						3.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
900	Backfill - Utility Trench: Wallowa st						3.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
901		8/14/18	PUL17-0177	A	ML	13.5	114.5	15.3	114.1	6	100	95	DP
902		8/14/18	PUL17-0177	A	ML	13.5	114.5	16.8	110.7	6	97	95	DP
903		8/14/18	PUL17-0177	A	ML	13.5	114.5	16.8	108.6	6	95	95	DP
904		8/14/18	PUL17-0177	A	ML	13.5	114.5	16.0	111.7	6	98	95	DP
905		8/14/18	PUL17-0177	A	ML	13.5	114.5	16.9	109.5	6	96	95	DP
906		8/14/18	PUL17-0177	A	ML	13.5	114.5	15.7	113.6	6	99	95	DP
907		8/14/18	PUL17-0177	A	ML	13.5	114.5	14.4	110.0	6	96	95	DP
908		8/14/18	PUL17-0177	A	ML	13.5	114.5	16.2	108.9	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
901	Backfill - Utility Trench: Wallowa st						3.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
902	Backfill - Utility Trench: Wallowa st						3.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
903	Backfill - Utility Trench: Wallowa st						3.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
904	Backfill - Utility Trench: Wallowa st						5.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
905	Backfill - Utility Trench: Wallowa st						5.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
906	Backfill - Utility Trench: Wallowa st						4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
907	Backfill - Utility Trench: Wallowa st						4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
908	Backfill - Utility Trench: Wallowa st						4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
909		8/14/18	PUL17-0177	A	ML	13.5	114.5	13.0	108.8	6	95	95	DP
910		8/14/18	PUL17-0177	A	ML	13.5	114.5	16.1	110.2	6	96	95	DP
911		8/14/18	PUL17-0177	A	ML	13.5	114.5	18.4	108.5	6	95	95	DP
912		8/14/18	PUL17-0177	A	ML	13.5	114.5	17.7	109.9	6	96	95	DP
913		8/14/18	PUL17-0177	A	ML	13.5	114.5	17.2	108.8	6	95	95	DP
914		8/14/18	PUL17-0177	A	ML	13.5	114.5	16.6	108.7	6	95	95	DP
915		8/14/18	PUL17-0177	A	ML	13.5	114.5	15.0	109.1	6	95	95	DP
916		8/14/18	PUL17-0177	A	ML	13.5	114.5	12.8	109.5	6	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
909	Backfill - Utility Trench: Wallowa st						4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
910	Backfill - Utility Trench: Wallowa st						4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
911	Backfill - Utility Trench: Wallowa st						4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
912	Backfill - Utility Trench: Wallowa st						4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
913	Backfill - Utility Trench: Wallowa st						4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
914	Backfill - Utility Trench: Wallowa st						4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
915	Backfill - Utility Trench: Wallowa st						4.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
916	Backfill - Stormwater Line Trench: Wallowa st						5.0	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
917		8/14/18	PUL17-0177	A	ML	13.5	114.5	14.4	110.7	6	97	95	DP
918		8/14/18	PUL17-0177	A	ML	13.5	114.5	12.5	117.8	6	103	95	DP
919		8/14/18	PUL17-0177	A	ML	13.5	114.5	14.3	112.1	6	98	95	DP
920		8/14/18	PUL17-0177	A	ML	13.5	114.5	14.9	108.8	6	95	95	DP
921		8/14/18	PUL17-0177	A	ML	13.5	114.5	12.4	108.9	6	95	95	DP
922		8/14/18	PUL17-0177	A	ML	13.5	114.5	15.0	109.8	6	96	95	DP
923		8/14/18	PUL17-0177	A	ML	13.5	114.5	15.4	113.3	6	99	95	DP
924		8/14/18	PUL17-0177	A	ML	13.5	114.5	16.4	108.7	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
917	Backfill - Stormwater Line Trench: Wallowa st						3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
918	Backfill - Stormwater Line Trench: Wallowa st						3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
919	Backfill - Stormwater Line Trench: Wallowa st						3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
920	Backfill - Stormwater Line Trench: Wallowa st						3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
921	Backfill - Stormwater Line Trench: Wallowa st						3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
922	Backfill - Stormwater Line Trench: Wallowa st						3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
923	Backfill - Stormwater Line Trench: Wallowa st						3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
924	Backfill - Stormwater Line Trench: Wallowa st						3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
925		8/14/18	PUL17-0177	A	ML	13.5	114.5	15.1	111.3	6	97	95	DP
926		8/14/18	PUL17-0177	A	ML	13.5	114.5	17.2	109.2	6	95	95	DP
927		8/14/18	PUL17-0177	A	ML	13.5	114.5	16.6	108.7	6	95	95	DP
928		8/15/18	PUL17-0177	A	ML	13.5	114.5	15.8	109.4	6	96	95	DP
929		8/15/18	PUL17-0177	A	ML	13.5	114.5	18.0	108.6	6	95	95	DP
930		8/15/18	PUL17-0177	A	ML	13.5	114.5	14.7	110.3	6	96	95	DP/MP
931		8/15/18	PUL17-0177	A	ML	13.5	114.5	15.4	108.8	6	95	95	DP/MP
932		8/15/18	PUL17-0177	A	ML	13.5	114.5	17.2	111.6	6	97	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
925	Backfill - Stormwater Line Trench: Wallowa st						3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
926	Backfill - Stormwater Line Trench: Wallowa st						3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
927	Backfill - Stormwater Line Trench: Wallowa st						3.5	Below finish grade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
928	Backfill - Stormwater Line Trench: Wallowa st						2.5	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
929	Backfill - Utility Trench: Wallowa st						2.5	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
930	Backfill - Stormwater Line Trench: Wallowa st						3.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
931	Backfill - Utility Trench: Wallowa st						4.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
932	Backfill - Stormwater Line Trench: Wallowa st						3.5	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP/MP: Density Pass / Moisture Pass													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
933		8/15/18	PUL17-0177	A	ML	13.5	114.5	15.8	108.6	6	95	95	DP/MP
934		8/15/18	PUL17269		GP	8.0	140.0	6.9	135.1	6	97	95	DP
935		8/15/18	PUL17269		GP	8.0	140.0	6.6	132.4	6	95	95	DP
936		8/15/18	PUL17-0177	A	ML	13.5	114.5	15.5	112.9	6	99	95	DP
937		8/15/18	PUL17-0177	A	ML	13.5	114.5	15.6	108.6	6	95	95	DP/MP
938		8/15/18	PUL17-0177	A	ML	13.5	114.5	15.8	111.6	6	97	95	DP/MP
939		8/15/18	PUL17-0177	A	ML	13.5	114.5	14.2	115.5	6	101	95	DP/MP
940		8/15/18	PUL17-0177	A	ML	13.5	114.5	16.5	111.6	6	97	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
933	Backfill - Utility Trench: Wallowa st						3.5	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
934	Backfill - Stormwater Line Trench: Golden hills dr						6.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
935	Backfill - Stormwater Line Trench: Golden hills dr						6.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
936	Backfill - Stormwater Line Trench: Wallowa st						3.5	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
937	Backfill - Utility Trench: Wallowa st						3.5	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
938	Backfill - Utility Trench: Wallowa st						7.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
939	Backfill - Utility Trench: Wallowa st						2.5	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
940	Backfill - Utility Trench: Wallowa st						2.5	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP: Density Pass													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
941		8/15/18	PUL17-0177	A	ML	13.5	114.5	16.1	110.0	6	96	95	DP/MP
942		8/15/18	PUL17-0177	A	ML	13.5	114.5	15.6	109.2	6	95	95	DP
943		8/15/18	PUL17-0177	A	ML	13.5	114.5	15.5	111.4	6	97	95	DP
944		8/15/18	PUL17-0177	A	ML	13.5	114.5	14.4	112.4	6	98	95	DP/MP
945		8/15/18	PUL17-0177	A	ML	13.5	114.5	15.9	109.1	6	95	95	DP/MP
946		8/15/18	PUL17-0177	A	ML	13.5	114.5	14.5	111.4	6	97	95	DP/MP
947		8/15/18	PUL17-0177	A	ML	13.5	114.5	16.4	110.6	6	97	95	DP/MP
948		8/15/18	PUL17269		GP	8.0	140.0	5.5	133.9	6	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
941	Backfill - Stormwater Line Trench: Wallowa st						2.5	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
942	Backfill - Utility Trench: Wallowa st						2.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
943	Backfill - Utility Trench: Wallowa st						2.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
944	Backfill - Stormwater Line Trench: Wallowa st						2.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
945	Backfill - Stormwater Line Trench: Wallowa st						2.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
946	Backfill - Stormwater Line Trench: Wallowa st						2.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
947	Backfill - Stormwater Line Trench: Wallowa st						2.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
948	Backfill - Stormwater Line Trench: Golden hills dr						6.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP: Density Pass													



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
949		8/15/18	PUL17269		GP	8.0	140.0	7.4	132.6	6	95	95	DP
950		8/15/18	PUL17269		GP	8.0	140.0	8.2	136.8	6	98	95	DP
951		8/15/18	PUL17269		GP	8.0	140.0	5.6	133.4	6	95	95	DP
952		8/15/18	PUL17269		GP	8.0	140.0	7.2	132.4	6	95	95	DP
953		8/16/18	PUL17-0177	A	ML	13.5	114.5	14.3	112.8	6	99	95	DP
954		8/16/18	PUL17-0177	A	ML	13.5	114.5	14.2	112.3	6	98	95	DP
955		8/16/18	PUL17-0177	A	ML	13.5	114.5	11.4	109.1	6	95	95	DP
956		8/16/18	PUL17-0177	A	ML	13.5	114.5	10.9	116.7	6	102	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
949	Backfill - Stormwater Line Trench: Golden hills dr						6.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
950	Backfill - Stormwater Line Trench: Golden hills dr						6.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
951	Backfill - Stormwater Line Trench: Golden hills dr						4.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
952	Backfill - Stormwater Line Trench: Golden hills dr						4.0	Below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
953	Backfill - Stormwater Line Trench: Wallowa st						3.0	Below final road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
954	Backfill - Stormwater Line Trench: Wallowa st						2.5	Below final road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
955	Backfill - Utility Trench: Wallowa st						2.5	Below final road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
956	Backfill - Utility Trench: Wallowa st						2.5	Below final road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
957		8/16/18	PUL17269		GP	8.0	140.0	6.5	132.7	6	95	95	DP
958		8/16/18	PUL17269		GP	8.0	140.0	7.9	133.7	6	96	95	DP
959		8/16/18	PUL17269		GP	8.0	140.0	5.4	132.9	6	95	95	DP
960		8/16/18	PUL17269		GP	8.0	140.0	6.7	135.1	6	97	95	DP
961		8/16/18	PUL17-0177	A	ML	13.5	114.5	15.9	109.3	6	95	95	DP
962		8/16/18	PUL17-0177	A	ML	13.5	114.5	15.2	108.3	6	95	95	DP
963		8/16/18	PUL17-0177	A	ML	13.5	114.5	15.1	109.1	6	95	95	DP
964		8/16/18	PUL17-0177	A	ML	13.5	114.5	14.9	109.0	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
957	Backfill - Stormwater Line Trench: Golden Hills dr.						5.0	Below final road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
958	Backfill - Stormwater Line Trench: Golden Hills dr.						5.0	Below final road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
959	Backfill - Stormwater Line Trench: Golden Hills dr.						4.5	Below final road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
960	Backfill - Stormwater Line Trench: Golden Hills dr.						5.0	Below final road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
961	Backfill - Utility Trench: Wallowa st						2.0	Below final road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
962	Backfill - Utility Trench: Wallowa st						1.0	Below final road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
963	Backfill - Utility Trench: Wallowa st							Below final road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
964	Backfill - Utility Trench: Wallowa st						2.0	Below final road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
965		8/16/18	PUL17-0177	A	ML	13.5	114.5	11.9	119.9	6	105	95	DP
966		8/16/18	PUL17-0177	A	ML	13.5	114.5	14.9	111.2	6	97	95	DP/MP
967		8/16/18	PUL17-0177	A	ML	13.5	114.5	14.6	108.7	6	95	95	DP/MP
968		8/16/18	PUL17-0177	A	ML	13.5	114.5	15.1	110.1	6	96	95	DP/MP
969		8/16/18	PUL17-0177	A	ML	13.5	114.5	15.0	112.1	6	98	95	DP/MP
970		8/16/18	PUL17-0177	A	ML	13.5	114.5	15.4	111.4	6	97	95	DP/MP
971		8/16/18	PUL17-0177	A	ML	13.5	114.5	15.5	111.3	6	97	95	DP/MP
972		8/16/18	PUL17-0177	A	ML	13.5	114.5	14.2	109.2	6	95	95	DP/MP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
965	Backfill - Stormwater Line Trench: Wallowa st						1.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
966	Backfill - Utility Trench: Wallowa st						1.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
967	Backfill - Stormwater Line Trench: Wallowa st						1.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
968	Backfill - Utility Trench: Wallowa st						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
969	Backfill - Utility Trench: Wallowa st						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
970	Backfill - Stormwater Line Trench: Wallowa st 100' east of SD 9						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
971	Backfill - Stormwater Line Trench: Wallowa st 25' east of SD 9						1.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
972	Backfill - Utility Trench: Wallowa st 25' east of SD 9 north utility trench						1.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP/MP: Density Pass / Moisture Pass													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
973		8/16/18	PUL17-0177	A	ML	13.5	114.5	16.0	111.4	6	97	95	DP/MP
974		8/16/18	PUL17-0177	A	ML	13.5	114.5	13.0	108.8	6	95	95	DP/MP
975		8/16/18	PUL17-0177	A	ML	13.5	114.5	15.5	110.6	6	97	95	DP/MP
976		8/16/18	PUL17-0177	A	ML	13.5	114.5	15.5	108.4	6	95	95	DP/MP
977		8/16/18	PUL17-0177	A	ML	13.5	114.5	17.2	108.8	6	95	95	DP
978		8/16/18	PUL17-0177	A	ML	13.5	114.5	17.1	109.4	6	96	95	DP
979		8/16/18	PUL17-0177	A	ML	13.5	114.5	17.2	108.7	6	95	95	DP
980		8/16/18	PUL17-0177	A	ML	13.5	114.5	14.4	109.7	6	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
973	Backfill - Utility Trench: Wallowa st 25' east of SD 9 south utility trench						0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
974	Backfill - Utility Trench: Wallowa st 25' west of SD 9 south utility trench						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
975	Backfill - Utility Trench: Wallowa st 100' west of SD 9 south utility trench						2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
976	Backfill - Utility Trench: Wallowa st 200' west of SD 9 south utility trench						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
977	Backfill - Utility Trench: Wallowa st 200' west of SD 9						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
978	Backfill - Utility Trench: Wallowa st 150' west of SD 9						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
979	Backfill - Utility Trench: West of storm drain 9 150' north utility trench. Wallowa st						5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
980	Backfill - Utility Trench: West of storm drain 9 75'. Wallowa st						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP/MP: Density Pass / Moisture Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP: Density Pass													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
981		8/17/18	PUL17269		GP	8.0	140.0	6.6	134.1	6	96	95	DP
982		8/17/18	PUL17269		GP	8.0	140.0	8.3	132.4	6	95	95	DP
983		8/17/18	PUL17269		GP	8.0	140.0	6.3	132.5	6	95	95	DP
984		8/17/18	PUL17269		GP	8.0	140.0	6.3	135.4	6	97	95	DP
985		8/17/18	PUL17-0177	A	ML	13.5	114.5	14.5	109.2	6	95	95	DP
986		8/17/18	PUL17-0177	A	ML	13.5	114.5	13.6	108.5	6	95	95	DP
987		8/17/18	PUL17-0177	A	ML	13.5	114.5	12.8	108.3	6	95	95	DP
988		8/17/18	PUL17-0177	A	ML	13.5	114.5	13.0	108.5	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
981	Backfill - Stormwater Line Trench: Golden hills dr. North 10' storm drain 10						6.0	Below finish road subgrade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
982	Backfill - Stormwater Line Trench: Golden hills dr. North 100' storm drain 10						6.0	Below finish road subgrade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
983	Backfill - Stormwater Line Trench: Golden hills dr. North 200' storm drain 10						6.0	Below finish road subgrade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
984	Backfill - Stormwater Line Trench: Golden hills dr. North 275' storm drain 10						6.0	Below finish road subgrade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
985	Backfill - Stormwater Line Trench: Golden hills dr. North of cayuse st 50'						2.0	Below finish road subgrade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
986	Backfill - Stormwater Line Trench: Golden hills dr. North of cayuse st 150'						2.0	Below finish road subgrade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
987	Backfill - Stormwater Line Trench: Golden hills dr. North of cayuse st 250'						2.0	Below finish road subgrade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
988	Backfill - Stormwater Line Trench: Wallowa st. 50' west of SD 9 north side utility trench						2.0	Below finish road subgrade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
989		8/17/18	PUL17-0177	A	ML	13.5	114.5	13.5	110.1	6	96	95	DP
990		8/17/18	PUL17-0177	A	ML	13.5	114.5	10.2	115.6	6	101	95	DP
991		8/17/18	PUL17-0177	A	ML	13.5	114.5	12.1	108.7	6	95	95	DP
992		8/17/18	PUL17-0177	A	ML	13.5	114.5	14.0	111.6	6	97	95	DP
993		8/17/18	PUL17-0177	A	ML	13.5	114.5	13.2	111.2	6	97	95	DP
994		8/17/18	PUL17-0177	A	ML	13.5	114.5	15.9	108.7	6	95	95	DP
995		8/17/18	PUL17-0177	A	ML	13.5	114.5	12.4	111.8	6	98	95	DP
996		8/17/18	PUL17-0177	A	ML	13.5	114.5	11.7	109.7	6	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
989	Backfill - Stormwater Line Trench: Wallowa st. 25' east of SD 9.						1.0	Below finish road subgrade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
990	Backfill - Utility Trench: Wallowa st. 50' east of SD 9 south side utility trench.						2.0	Below finish road subgrade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
991	Backfill - Utility Trench: Wallowa st. 100' east of SD 9 south side utility trench.						2.0	Below finish road subgrade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
992	Backfill - Utility Trench: Wallowa st. 150' east of SD 9						2.0	Below finish road subgrade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
993	Backfill - Utility Trench: Wallowa st. 50' east of SD 8						2.0	Below finish road subgrade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
994	Backfill - Utility Trench: Wallowa st. 100' west of SD 8. North side utility trench						2.0	Below finish road subgrade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
995	Backfill - Utility Trench: Wallowa st. 150' west of SD 8. North side utility trench						2.0	Below finish road subgrade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
996	Backfill - Utility Trench: Wallowa st. 75' east of SD 9. North side utility trench						2.0	Below finish road subgrade		Instrotek / X3500 / 1089 / 3/21/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
997		8/17/18	PUL17-0177	A	ML	13.5	114.5	13.8	108.5	6	95	95	DP
998		8/20/18	PUL17-0177	A	ML	13.5	114.5	15.8	108.5	6	95	95	DP
999		8/20/18	PUL17-0177	A	ML	13.5	114.5	13.1	110.5	6	97	95	DP
1000		8/20/18	PUL17-0177	A	ML	13.5	114.5	12.5	116.1	6	101	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
997	Backfill - Utility Trench: Wallowa st. 15' east of SD 9. North side utility trench						2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
998	Backfill - Stormwater Line Trench: Wallowa st. South side utility trench						3.5	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
999	Backfill - Stormwater Line Trench: Wallowa st. Storm drain trench						2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
1000	Backfill - Stormwater Line Trench: Wallowa st. Storm drain trench						1.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1001		8/20/18	PUL17-0177	A	ML	13.5	114.5	16.4	111.2	6	97	95	DP
1002		8/20/18	PUL17-0177	A	ML	13.5	114.5	15.0	108.6	6	95	95	DP/MP
1003		8/20/18	PUL17-0177	A	ML	13.5	114.5	13.2	114.0	6	100	95	DP/MP
1004		8/20/18	PUL17269		GP	8.0	140.0	4.2	133.2	6	95	95	DP
1005		8/20/18	PUL17-0177	A	ML	13.5	114.5	12.3	109.8	6	96	95	DP
1006		8/20/18	PUL17-0177	A	ML	13.5	114.5	13.2	111.7	6	98	95	DP
1007		8/20/18	PUL17-0177	A	ML	13.5	114.5	11.2	113.2	6	99	95	DP
1008		8/20/18	PUL17-0177	A	ML	13.5	114.5	12.1	110.3	6	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1001	Backfill - Stormwater Line Trench: Wallowa st. North side utility trench						3.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
1002	Backfill - Utility Trench: Wallowa st. South side utility trench						2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
1003	Backfill - Stormwater Line Trench: Wallowa st. Storm drain						2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
1004	Backfill - Stormwater Line Trench: Golden Hills Dr. Storm drain						3.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
1005	Fill - Structural: Umatilla st. Bottom of north side embankment						3.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
1006	Fill - Structural: Umatilla st. Bottom of north side embankment						5.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
1007	Fill - Structural: Umatilla st. Bottom of north side embankment						4.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
1008	Fill - Structural: Umatilla st. Bottom of north side embankment						4.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP/MP: Density Pass / Moisture Pass													



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1009		8/20/18	PUL17269		GP	8.0	140.0	7.2	133.1	6	95	95	DP
1010		8/20/18	PUL17269		GP	8.0	140.0	6.4	132.5	6	95	95	DP
1011		8/20/18	PUL17269		GP	8.0	140.0	6.9	133.4	6	95	95	DP
1012		8/20/18	PUL17-0177	A	ML	13.5	114.5	9.6	109.8	6	96	95	DP
1013		8/20/18	PUL17-0177	A	ML	13.5	114.5	13.2	109.2	6	95	95	DP/MP
1014		8/20/18	PUL17-0177	A	ML	13.5	114.5	10.0	108.8	6	95	95	DP
1015		8/20/18	PUL17-0177	A	ML	13.5	114.5	16.7	108.5	6	95	95	DP
1016		8/20/18	PUL17269		GP	8.0	140.0	6.6	136.8	6	98	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1009	Backfill - Stormwater Line Trench: Golden Hills Dr. storm drain trench						4.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
1010	Backfill - Stormwater Line Trench: Golden Hills Dr. storm drain trench						4.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
1011	Backfill - Stormwater Line Trench: Golden Hills Dr. storm drain trench						4.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
1012	Backfill - Stormwater Line Trench: Wallowa st. storm drain trench						2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
1013	Backfill - Utility Trench: Wallowa st. South side utility trench						3.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
1014	Backfill - Utility Trench: Wallowa st. Storm drain trench						2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
1015	Backfill - Utility Trench: Wallowa st. North side utility trench						3.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
1016	Backfill - Sanitary Sewer Line Trench: Golden hills drive. Northern most man hole						4.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DP/MP: Density Pass / Moisture Pass													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1017		8/20/18	PUL17269		GP	8.0	140.0	7.2	134.0	6	96	95	DP
1018		8/20/18	PUL17-0177	A	ML	13.5	114.5	12.9	109.0	6	95	95	DP
1019		8/20/18	PUL17-0177	A	ML	13.5	114.5	16.4	111.3	6	97	95	DP
1020		8/21/18	PUL17-0177	A	ML	13.5	114.5	15.3	112.4	6	98	95	DP
1021		8/21/18	PUL17-0177	A	ML	13.5	114.5	14.6	108.6	6	95	95	DP
1022		8/21/18	PUL17-0177	A	ML	13.5	114.5	18.1	108.6	6	95	95	DP
1023		8/21/18	PUL17-0177	A	ML	13.5	114.5	15.6	108.7	6	95	95	DP
1024		8/21/18	PUL17-0177	A	ML	13.5	114.5	16.0	108.4	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1017	Backfill - Sanitary Sewer Line Trench: Golden hills drive and wallowa st intersection						2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
1018	Backfill - Sanitary Sewer Line Trench: Wallowa st 20' east of golden hills manhole						2.0	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
1019	Backfill - Sanitary Sewer Line Trench: Wallowa st 50' east of golden hills manhole north side utility trench.						2.5	Below finish road subgrade	Instrotek / X3500 / 1089 / 3/21/2018			PAULSEN, ZACH	
1020	Backfill - Sanitary Sewer Line Trench: Golden hills dr. North of cayuse st						3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1021	Backfill - Sanitary Sewer Line Trench: Golden hills dr. North of cayuse st						3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1022	Backfill - Sanitary Sewer Line Trench: Golden hills dr. North of wallowa st						1.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1023	Backfill - Sanitary Sewer Line Trench: Wallowa st. 100' east of golden hills dr intersection. Storm drain trench						1.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1024	Backfill - Sanitary Sewer Line Trench: Wallowa st. 50' east of golden hills dr intersection. South side utility trench						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1025		8/21/18	PUL17269		GP	8.0	140.0	7.6	136.9	6	98	95	DP
1026		8/21/18	PUL17-0177	A	ML	13.5	114.5	13.6	108.5	6	95	95	DP
1027		8/21/18	PUL17-0177	A	ML	13.5	114.5	14.4	112.0	6	98	95	DP
1028		8/21/18	PUL17269		GP	8.0	140.0	7.2	132.6	6	95	95	DP
1029		8/21/18	PUL17269		GP	8.0	140.0	7.2	132.9	6	95	95	DP
1030		8/21/18	PUL17269		GP	8.0	140.0	6.9	137.6	6	98	95	DP
1031		8/21/18	PUL17269		GP	8.0	140.0	7.6	140.3	6	100	95	DP
1032		8/21/18	PUL17269		GP	8.0	140.0	6.3	132.5	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1025	Backfill - Sanitary Sewer Line Trench: Golden hills dr. South of waha st						2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1026	Backfill - Sanitary Sewer Line Trench: Golden hills dr. South of waha st						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1027	Backfill - Sanitary Sewer Line Trench: Golden hills dr. North of cayuse st						2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1028	Backfill - Sanitary Sewer Line Trench: Golden hills dr. And wallowa st storm drain intersection						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1029	Backfill - Sanitary Sewer Line Trench: Golden hills dr. And wallowa st storm drain intersection east side of man hole 2'						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1030	Backfill - Sanitary Sewer Line Trench: Wallowa st. Storm drain manhole						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1031	Backfill - Sanitary Sewer Line Trench: Wallowa st. Storm drain manhole						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1032	Backfill - Sanitary Sewer Line Trench: Wallowa st. Storm drain manhole						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1033		8/21/18	PUL17-0177	A	ML	13.5	114.5	16.6	108.5	6	95	95	DP
1034		8/21/18	PUL17269		GP	8.0	140.0	7.6	134.9	6	96	95	DP
1035		8/21/18	PUL17269		GP	8.0	140.0	6.9	141.0	6	101	95	DP
1036		8/21/18	PUL17269		GP	8.0	140.0	10.5	133.1	6	95	95	DP
1037		8/21/18	PUL17269		GP	8.0	140.0	6.6	135.0	6	96	95	DP
1038		8/21/18	PUL17269		GP	8.0	140.0	5.8	133.8	6	96	95	DP
1039		8/21/18	PUL17-0177	A	ML	13.5	114.5	17.1	109.2	6	95	95	DP
1040		8/21/18	PUL17-0177	A	ML	13.5	114.5	15.3	109.6	6	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1033	Backfill - Sanitary Sewer Line Trench: Golden hills dr storm drain trench north of wallowa st 125'						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1034	Backfill - Stormwater Line Trench: Wallowa st furthest east man hole west side 1'						7.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1035	Backfill - Stormwater Line Trench: Wallowa st furthest east man hole east side 1'						7.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1036	Backfill - Stormwater Line Trench: Wallowa st furthest east man hole east side 8'						7.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1037	Backfill - Stormwater Line Trench: Wallowa st 2nd furthest east man hole east side 1'						5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1038	Backfill - Stormwater Line Trench: Wallowa st 2nd furthest east man hole west side 2'						5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1039	Backfill - Stormwater Line Trench: Golden hills dr. North of wallowa st						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1040	Backfill - Stormwater Line Trench: Golden hills dr. North of cayuse st						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1041		8/21/18	PUL17-0177	A	ML	13.5	114.5	14.3	112.2	6	98	95	DP
1042		8/21/18	PUL17-0177	A	ML	13.5	114.5	14.8	108.4	6	95	95	DP
1043		8/21/18	PUL17269		GP	8.0	140.0	7.8	132.6	6	95	95	DP
1044		8/21/18	PUL17269		GP	8.0	140.0	7.5	133.6	6	95	95	DP
1045		8/21/18	PUL17269		GP	8.0	140.0	6.3	134.0	6	96	95	DP
1046		8/22/18	PUL17269		GP	8.0	140.0	6.4	132.5	6	95	95	DP
1047		8/22/18	PUL17269		GP	8.0	140.0	6.3	133.1	6	95	95	DP
1048		8/22/18	PUL17269		GP	8.0	140.0	7.3	134.9	6	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1041	Backfill - Stormwater Line Trench: Golden hills dr. North of cayuse st						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1042	Backfill - Stormwater Line Trench: Golden hills dr. North of cayuse st						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1043	Backfill - Stormwater Line Trench: Wallowa st 2nd furthest manhole east. North side 1' from manhole						4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1044	Backfill - Stormwater Line Trench: Wallowa st furthest manhole east. West side 1' from manhole						6.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1045	Backfill - Stormwater Line Trench: Wallowa st furthest manhole east. East side 2' from manhole						6.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1046	Backfill - Manhole: Wallowa st 2nd furthest east manhole west side 2'						2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1047	Backfill - Manhole: Wallowa st furthest east manhole north east side 1'						6.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1048	Backfill - Manhole: Wallowa st furthest east manhole south Wes side 1'						6.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1049		8/22/18	PUL17269		GP	8.0	140.0	6.1	135.2	6	97	95	DP
1050		8/22/18	PUL17269		GP	8.0	140.0	7.0	138.3	6	99	95	DP
1051		8/22/18	PUL17269		GP	8.0	140.0	7.0	134.4	6	96	95	DP
1052		8/22/18	PUL17269		GP	8.0	140.0	5.6	141.0	6	101	95	DP
1053		8/22/18	PUL17269		GP	8.0	140.0	7.8	136.1	6	97	95	DP
1054		8/22/18	PUL17-0177	A	ML	13.5	114.5	15.8	109.9	6	96	95	DP
1055		8/22/18	PUL17-0177	A	ML	13.5	114.5	14.6	109.4	6	96	95	DP
1056		8/22/18	PUL17-0177	A	ML	13.5	114.5	17.3	108.4	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1049	Backfill - Manhole: Wallowa st 2nd manhole east of golden hills dr. south Wes side 2'						2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1050	Backfill - Manhole: Wallowa st 2nd manhole east of golden hills dr. North side 2'						2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1051	Backfill - Manhole: Wallowa st 2nd manhole east of golden hills dr. North side 2'						2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1052	Backfill - Manhole: Wallowa st 2nd furthest manhole east of golden hills dr. North side 2'						3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1053	Backfill - Manhole: Wallowa st 2nd furthest manhole east of golden hills dr. North side 2'						3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1054	Backfill - Manhole: Golden Hills Dr. north of wallowa st						0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1055	Backfill - Manhole: Golden Hills Dr. north of wallowa st						0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1056	Backfill - Manhole: Golden Hills Dr. north of cayuse st						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1057		8/22/18	PUL17-0177	A	ML	13.5	114.5	17.3	110.1	6	96	95	DP
1058		8/22/18	PUL17-0177	A	ML	13.5	114.5	15.0	108.4	6	95	95	DP
1059		8/22/18	PUL17-0177	A	ML	13.5	114.5	12.9	110.9	6	97	95	DP
1060		8/22/18	PUL17-0177	A	ML	13.5	114.5	12.1	112.0	6	98	95	DP
1061		8/22/18	PUL17-0177	A	ML	13.5	114.5	15.1	108.9	6	95	95	DP
1062		8/22/18	PUL17-0177	A	ML	13.5	114.5	15.7	108.4	6	95	95	DP
1063		8/22/18	PUL17-0177	A	ML	13.5	114.5	15.4	110.7	6	97	95	DP
1064		8/22/18	PUL17-0177	A	ML	13.5	114.5	11.8	113.3	6	99	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1057	Backfill - Manhole: Golden Hills Dr. north of cayuse st						1.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1058	Backfill - Utility Trench: Wallowa st south side of storm drains						2.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1059	Backfill - Utility Trench: Wallowa st storm drain						0.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1060	Backfill - Utility Trench: Wallowa st storm drain						0.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1061	Backfill - Utility Trench: Wallowa st northern utility trench						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1062	Backfill - Utility Trench: Wallowa st southern utility trench						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1063	Backfill - Utility Trench: Wallowa st northern utility trench						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1064	Backfill - Utility Trench: Wallowa st southern utility trench						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1065		8/22/18	PUL17-0177	A	ML	13.5	114.5	11.2	114.5	6	100	95	DP
1066		8/22/18	PUL17-0177	A	ML	13.5	114.5	11.2	110.0	6	96	95	DP
1067		8/22/18	PUL17-0177	A	ML	13.5	114.5	15.8	109.9	6	96	95	DP
1068		8/22/18	PUL17-0177	A	ML	13.5	114.5	12.7	110.6	6	97	95	DP
1069		8/22/18	PUL17-0177	A	ML	13.5	114.5	10.7	114.9	6	100	95	DP
1070		8/22/18	PUL17-0177	A	ML	13.5	114.5	9.4	110.7	6	97	95	DP
1071		8/22/18	PUL17-0177	A	ML	13.5	114.5	13.2	109.2	6	95	95	DP
1072		8/22/18	PUL17-0177	A	ML	13.5	114.5	11.1	112.8	6	99	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician
1065	Backfill - Utility Trench: Wallowa st north side utility trench						2.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1066	Backfill - Utility Trench: Wallowa st south side utility trench						2.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1067	Backfill - Utility Trench: Wallowa st south side utility trench						0.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1068	Backfill - Utility Trench: Wallowa st south side utility trench						0.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1069	Backfill - Utility Trench: Wallowa st south side utility trench						0.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1070	Backfill - Utility Trench: Wallowa st south side utility trench						0.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1071	Backfill - Utility Trench: Wallowa st north side utility trench						0.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1072	Backfill - Utility Trench: Wallowa st north side utility trench						0.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1073		8/22/18	PUL17-0177	A	ML	13.5	114.5	14.1	108.3	6	95	95	DP
1074		8/22/18	PUL17-0177	A	ML	13.5	114.5	13.5	111.5	6	97	95	DP
1075		8/22/18	PUL17-0177	A	ML	13.5	114.5	16.5	108.4	6	95	95	DP
1076		8/23/18	PUL17-0177	A	ML	13.5	114.5	14.2	109.1	6	95	95	DP
1077		8/23/18	PUL17-0177	A	ML	13.5	114.5	13.1	111.0	6	97	95	DP
1078		8/23/18	PUL17-0177	A	ML	13.5	114.5	12.1	113.9	6	99	95	DP
1079		8/23/18	PUL17-0177	A	ML	13.5	114.5	11.7	109.2	6	95	95	DP
1080		8/23/18	PUL17-0177	A	ML	13.5	114.5	11.4	111.7	6	98	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1073	Backfill - Utility Trench: Golden Hills dr. South of waha st intersection						1.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1074	Backfill - Utility Trench: Golden Hills dr. Between waha and cayuse st						1.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1075	Backfill - Utility Trench: Golden Hills dr. North of cayuse st						1.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1076	Backfill - Utility Trench: Golden Hills Dr. north of cayuse st						0.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1077	Backfill - Utility Trench: Golden Hills Dr. north of cayuse st						0.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1078	Backfill - Utility Trench: Golden Hills Dr. north of cayuse st						0.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1079	Backfill - Utility Trench: Wallowa st north side utility trench						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1080	Backfill - Utility Trench: Wallowa st north side utility trench						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1081		8/23/18	PUL17-0177	A	ML	13.5	114.5	13.5	111.0	6	97	95	DP
1082		8/23/18	PUL17269		GP	8.0	140.0	6.1	132.6	6	95	95	DP
1083		8/23/18	PUL17269		GP	8.0	140.0	6.7	133.1	6	95	95	DP
1084		8/23/18	PUL17269		GP	8.0	140.0	5.9	133.5	6	95	95	DP
1085		8/23/18	PUL17269		GP	8.0	140.0	7.3	137.3	6	98	95	DP
1086		8/24/18	PUL17269		GP	8.0	140.0	6.7	139.7	6	100	95	DP
1087		8/24/18	PUL17269		GP	8.0	140.0	6.2	133.1	6	95	95	DP
1088		8/24/18	PUL17269		GP	8.0	140.0	8.1	137.4	6	98	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1081	Backfill - Utility Trench: Wallowa st north side utility trench						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1082	Backfill - Stormwater Line Trench: Golden Hills Dr north of wallowa st storm drain						7.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1083	Backfill - Stormwater Line Trench: Golden Hills Dr north of wallowa st storm drain						5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1084	Backfill - Stormwater Line Trench: Golden Hills Dr north of wallowa st storm drain						5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1085	Backfill - Stormwater Line Trench: Golden Hills Dr north of wallowa st storm drain						5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1086	Backfill - Sanitary Sewer Line Trench: Golden hills dr. North of wallowa st.						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1087	Backfill - Sanitary Sewer Line Trench: Golden hills dr. North of wallowa st.						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1088	Backfill - Sanitary Sewer Line Trench: Golden hills dr. North of wallowa st.						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1089		8/24/18	PUL17269		GP	8.0	140.0	6.6	132.6	6	95	95	DP
1090		8/27/18	PUL17269		GP	8.0	140.0	5.0	133.0	6	95	95	DP
1091		8/27/18	PUL17269		GP	8.0	140.0	5.1	132.5	6	95	95	DP
1092		8/27/18	PUL17269		GP	8.0	140.0	5.2	133.6	6	95	95	DP
1093		8/27/18	PUL17269		GP	8.0	140.0	6.1	133.5	6	95	95	DP
1094		8/27/18	PUL17269		GP	8.0	140.0	6.4	135.7	6	97	95	DP
1095		8/27/18	PUL17269		GP	8.0	140.0	5.4	133.2	6	95	95	DP
1096		8/27/18	PUL17269		GP	8.0	140.0	5.6	135.8	6	97	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician
1089	Backfill - Sanitary Sewer Line Trench: Golden hills dr. South of cayuse st						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1090	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench. 2' East of furthest east SD						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1091	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench. 3' west of furthest east SD						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1092	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench. 20' south of furthest east SD						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1093	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench north side						6.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1094	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench 20' west of furthest east SD.						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1095	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench 10' southwest of furthest east SD.						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1096	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench 20' southwest of furthest east SD.						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1097		8/27/18	PUL17269		GP	8.0	140.0	4.9	137.2	6	98	95	DP
1098		8/27/18	PUL17269		GP	8.0	140.0	7.3	136.2	6	97	95	DP
1099		8/27/18	PUL17269		GP	8.0	140.0	5.0	136.3	6	97	95	DP
1100		8/27/18	PUL17269		GP	8.0	140.0	5.4	135.4	6	97	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1097	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench 10' southeast of furthest east SD.						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1098	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench 15' north of sanitation trench						7.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1099	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench 20' west of furthest east SD						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1100	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench 10' west of furthest east SD						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1101		8/27/18	PUL17269		GP	8.0	140.0	5.9	134.7	6	96	95	DP
1102		8/27/18	PUL17269		GP	8.0	140.0	5.8	135.3	6	97	95	DP
1103		8/28/18	PUL17269		GP	8.0	140.0	4.7	138.8	6	99	95	DP
1104		8/28/18	PUL17269		GP	8.0	140.0	5.3	139.3	6	100	95	DP
1105		8/28/18	PUL17269		GP	8.0	140.0	5.0	133.0	6	95	95	DP
1106		8/28/18	PUL17269		GP	8.0	140.0	4.8	141.8	6	101	95	DP
1107		8/28/18	PUL17269		GP	8.0	140.0	4.1	134.3	6	96	95	DP
1108		8/28/18	PUL17269		GP	8.0	140.0	4.4	132.8	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1101	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench 5' northeast of furthest east SS manhole						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1102	Backfill - Stormwater Line Trench: Umatilla st. Storm drain trench 25' northeast of furthest east SS manhole						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1103	Backfill - Stormwater Line Trench: Umatilla st. North east of eastern most manhole 40'						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1104	Backfill - Stormwater Line Trench: Umatilla st. North east of eastern most manhole 5'						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1105	Backfill - Stormwater Line Trench: Umatilla st. East of eastern most manhole 20'						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1106	Backfill - Stormwater Line Trench: Umatilla st. East of eastern most manhole 5'						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1107	Backfill - Stormwater Line Trench: Umatilla st. SouthEast of eastern most manhole 40'						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1108	Backfill - Stormwater Line Trench: Umatilla st. SouthEast of eastern most manhole 10'						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results														
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark	
1109		8/28/18	PUL17269		GP	8.0	140.0	4.9	133.7	6	96	95	DP	
1110		8/28/18	PUL17269		GP	8.0	140.0	4.2	132.4	6	95	95	DP	
1111		8/28/18	PUL17269		GP	8.0	140.0	5.2	134.6	6	96	95	DP	
1112		8/28/18	PUL17269		GP	8.0	140.0	4.3	135.1	6	97	95	DP	
1113		8/28/18	PUL17269		GP	8.0	140.0	5.0	137.7	6	98	95	DP	
1114		8/28/18	PUL17269		GP	8.0	140.0	4.5	135.5	6	97	95	DP	
1115		8/28/18	PUL17269		GP	8.0	140.0	4.2	132.4	6	95	95	DP	
1116		8/28/18	PUL17269		GP	8.0	140.0	5.7	132.5	6	95	95	DP	
Test Information														
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician	
1109	Backfill - Stormwater Line Trench: Umatilla st. North of eastern most manhole 2'						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1110	Backfill - Stormwater Line Trench: Umatilla st. North of eastern most manhole 2'						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1111	Backfill - Stormwater Line Trench: Umatilla st. West of eastern most manhole 50' in stormdrain trench						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1112	Backfill - Stormwater Line Trench: Umatilla st. West of eastern most manhole 50' in sanitation trench						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1113	Backfill - Stormwater Line Trench: Umatilla st. North of sanitation trench 20' in utility trench						5.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1114	Backfill - Stormwater Line Trench: Umatilla st. North of sanitation trench 5' in utility trench						4.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1115	Backfill - Stormwater Line Trench: Umatilla st. South of storm drain trench 20' in utility trench						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1116	Backfill - Stormwater Line Trench: Umatilla st. South of storm drain trench 5' in utility trench						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments									
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.									

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1117		8/28/18	PUL17269		GP	8.0	140.0	5.6	135.8	6	97	95	DP
1118		8/28/18	PUL17269		GP	8.0	140.0	3.3	132.6	6	95	95	DP
1119		8/28/18	PUL17269		GP	8.0	140.0	3.7	136.6	6	98	95	DP
1120		8/28/18	PUL17269		GP	8.0	140.0	6.8	134.1	6	96	95	DP
1121		8/28/18	PUL17269		GP	8.0	140.0	7.6	136.7	6	98	95	DP
1122		8/28/18	PUL17269		GP	8.0	140.0	6.2	136.0	6	97	95	DP
1123		8/28/18	PUL17269		GP	8.0	140.0	4.5	132.6	6	95	95	DP
1124		8/29/18	PUL17269		GP	8.0	140.0	6.4	138.6	6	99	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1117	Backfill - Utility Trench: Umatilla st. North of sanitation trench 8'						5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1118	Backfill - Utility Trench: Umatilla st. South of storm drain trench 15'						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1119	Backfill - Utility Trench: Umatilla st. South of storm drain trench 5'						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1120	Backfill - Utility Trench: Umatilla st.storm drain trench 120' west of furthest east manjole						3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1121	Backfill - Utility Trench: Umatilla st. Utility trench 25' east of furthest east manhole						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1122	Backfill - Utility Trench: Umatilla st. Utility trench 10' east of furthest east manhole						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1123	Backfill - Utility Trench: Umatilla st. Northeast Utility trench 25' east of furthest east manhole						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1124	Backfill - Utility Trench: Umatilla st. Southeast utility trench 50' from furthest east MH						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1125		8/29/18	PUL17269		GP	8.0	140.0	5.0	133.6	6	95	95	DP
1126		8/29/18	PUL17269		GP	8.0	140.0	6.0	139.9	6	100	95	DP
1127		8/29/18	PUL17269		GP	8.0	140.0	3.8	133.4	6	95	95	DP
1128		8/29/18	PUL17269		GP	8.0	140.0	4.5	140.9	6	101	95	DP
1129		8/29/18	PUL17269		GP	8.0	140.0	5.6	132.7	6	95	95	DP
1130		8/29/18	PUL17269		GP	8.0	140.0	4.2	133.8	6	96	95	DP
1131		8/29/18	PUL17269		GP	8.0	140.0	3.4	133.0	6	95	95	DP
1132		8/29/18	PUL17269		GP	8.0	140.0	6.5	132.7	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1125	Backfill - Utility Trench: Umatilla st. Southeast utility trench 20' from furthest east MH						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1126	Backfill - Utility Trench: Umatilla st. Northeast utility trench 20' from furthest east MH						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1127	Backfill - Utility Trench: Umatilla st. Storm drain trench 7' west from furthest east MH						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1128	Backfill - Utility Trench: Umatilla st. Southern utility trench 7' from storm drain in eastern cul de sac						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1129	Backfill - Utility Trench: Umatilla st. Southern utility trench 20' from storm drain in eastern cul de sac						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1130	Backfill - Utility Trench: Umatilla st. Southern utility trench 20' from storm drain.						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1131	Backfill - Utility Trench: Umatilla st. Southern utility trench 5' from storm drain.						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1132	Backfill - Utility Trench: Umatilla st. Northern utility trench 15' from sanitation trench.						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1133		8/29/18	PUL17269		GP	8.0	140.0	5.4	133.7	6	96	95	DP
1134		8/29/18	PUL17269		GP	8.0	140.0	4.6	136.9	6	98	95	DP
1135		8/29/18	PUL17269		GP	8.0	140.0	3.4	134.9	6	96	95	DP
1136		8/29/18	PUL17269		GP	8.0	140.0	3.6	132.8	6	95	95	DP
1137		8/29/18	PUL17269		GP	8.0	140.0	4.8	133.0	6	95	95	DP
1138		8/29/18	PUL17269		GP	8.0	140.0	4.5	133.5	6	95	95	DP
1139		8/29/18	PUL17269		GP	8.0	140.0	6.1	135.1	6	97	95	DP
1140		8/29/18	PUL17269		GP	8.0	140.0	5.4	133.2	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1133	Backfill - Utility Trench: Umatilla st. Storm drain trench 100' west from eastern most manhole						3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1134	Backfill - Utility Trench: Umatilla st. Storm drain trench 120' west from eastern most manhole						3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1135	Backfill - Utility Trench: Umatilla st. Southern utility trench south of manhole 6.5 15'						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1136	Backfill - Utility Trench: Umatilla st. Southern utility trench south of manhole 6.5 5'						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1137	Backfill - Utility Trench: Umatilla st. Northern utility trench north of manhole 6.5 15'						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1138	Backfill - Utility Trench: Umatilla st. Northern utility trench north of manhole 6.5 5'						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1139	Backfill - Utility Trench: Umatilla st. Sanitation trench 50' east of manhole 6.5						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1140	Backfill - Utility Trench: Umatilla st. Sanitation trench 5' east of manhole 6.5						4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1141		8/29/18	PUL17269		GP	8.0	140.0	4.2	132.9	6	95	95	DP
1142		8/29/18	PUL17-0177	A	ML	13.5	114.5	9.8	120.6	6	105	95	DP
1143		8/29/18	PUL17-0177	A	ML	13.5	114.5	11.1	121.9	6	106	95	DP
1144		8/29/18	PUL17-0177	A	ML	13.5	114.5	9.8	114.1	6	100	95	DP
1145		8/29/18	PUL17-0177	A	ML	13.5	114.5	9.8	121.9	6	106	95	DP
1146		8/29/18	PUL17-0177	A	ML	13.5	114.5	9.7	117.5	6	103	95	DP
1147		8/29/18	PUL17-0177	A	ML	13.5	114.5	11.1	122.5	6	107	95	DP
1148		8/29/18	PUL17-0177	A	ML	13.5	114.5	10.7	117.3	6	102	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1141	Backfill - Utility Trench: Umatilla st. Northern utility trench 30' north of Sanitation trench. Between manhole 6.5-7						4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1142	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. Southern utility trench 30' south of storm drain trench						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1143	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. Southern utility trench 5' south of storm drain trench						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1144	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. South east utility trench 25' southeast of storm drain trench						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1145	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. South east utility trench 5' southeast of storm drain trench						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1146	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. Eastern utility trench 25' east of manhole 7						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1147	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. Eastern utility trench 15' east of manhole 7						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1148	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. Northeastern utility trench 30' east of manhole 7						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1149		8/29/18	PUL17-0177	A	ML	13.5	114.5	7.3	133.6	6	117	95	DP
1150		8/29/18	PUL17-0177	A	ML	13.5	114.5	16.8	116.3	6	102	95	DP
1151		8/29/18	PUL17-0177	A	ML	13.5	114.5	17.7	108.8	6	95	95	DP
1152		8/29/18	PUL17269		GP	8.0	140.0	7.1	134.4	6	96	95	DP
1153		8/29/18	PUL17269		GP	8.0	140.0	5.1	132.4	6	95	95	DP
1154		8/29/18	PUL17269		GP	8.0	140.0	6.0	133.8	6	96	95	DP
1155		8/30/18	PUL17-0177	A	ML	13.5	114.5	10.1	108.8	6	95	95	DP
1156		8/30/18	PUL17-0177	A	ML	13.5	114.5	13.9	110.6	6	97	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1149	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. Northeastern utility trench 15' east of manhole 7						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1150	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. Storm drain trench 50' west of manhole 7						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1151	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. Storm drain trench 15' west of manhole 7						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1152	Backfill - Utility Trench: Umatilla st. Storm drain trench 25' east of manhole 6.5						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1153	Backfill - Utility Trench: Umatilla st. Storm drain trench 25' east of manhole 6.5						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1154	Backfill - Utility Trench: Umatilla st. Sanitation trench 25' east of manhole 6.5						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1155	Backfill - Sanitary Sewer Line Trench: Golden hills dr. North of wallowa st						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1156	Backfill - Sanitary Sewer Line Trench: Golden hills dr. North of wallowa st						2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1157		8/30/18	PUL17-0177	A	ML	13.5	114.5	13.8	114.5	6	100	95	DP
1158		8/30/18	PUL17-0177	A	ML	13.5	114.5	9.7	119.2	6	104	95	DP
1159		8/30/18	PUL17-0177	A	ML	13.5	114.5	7.3	126.3	6	110	95	DP
1160		8/30/18	PUL17-0177	A	ML	13.5	114.5	5.4	116.1	6	101	95	DP
1161		8/30/18	PUL17-0177	A	ML	13.5	114.5	10.0	120.3	6	105	95	DP
1162		8/30/18	PUL17-0177	A	ML	13.5	114.5	9.0	111.9	6	98	95	DP
1163		8/30/18	PUL17-0177	A	ML	13.5	114.5	8.5	122.1	6	107	95	DP
1164		8/30/18	PUL17-0177	A	ML	13.5	114.5	10.2	110.5	6	97	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1157	Backfill - Sanitary Sewer Line Trench: Golden hills dr. North of wallowa st						2.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1158	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. 50' northeast of manhole 7						0.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1159	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. 50' east of manhole 7						0.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1160	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. 15' east of manhole 7						0.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1161	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. 30' southeast of manhole 7						0.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1162	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. 15' southeast of manhole 7						0.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1163	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. 15' southeast of manhole 7						0.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1164	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. 15' south of manhole 7						0.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1165		8/30/18	PUL17-0177	A	ML	13.5	114.5	14.3	112.8	6	99	95	DP
1166		8/30/18	PUL17-0177	A	ML	13.5	114.5	10.4	114.6	6	100	95	DP
1167		8/30/18	PUL17-0177	A	ML	13.5	114.5	7.4	136.7	6	119	95	DP
1168		8/30/18	PUL17-0177	A	ML	13.5	114.5	5.9	132.5	6	116	95	DP
1169		8/30/18	PUL17269		GP	8.0	140.0	5.4	137.8	6	98	95	DP
1170		8/30/18	PUL17269		GP	8.0	140.0	4.9	132.8	6	95	95	DP
1171		8/30/18	PUL17269		GP	8.0	140.0	5.5	132.9	6	95	95	DP
1172		8/30/18	PUL17269		GP	8.0	140.0	4.9	135.7	6	97	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1165	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. 25' west of manhole 7						1.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1166	Backfill - Utility Trench: Umatilla st. Eastern cul de sac. 100' west of manhole 7						1.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1167	Backfill - Utility Trench: Umatilla st. 5' west of manhole 6.5 sanitation trench						4.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1168	Backfill - Utility Trench: Umatilla st. 25' west of manhole 6.5 sanitation trench						4.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1169	Backfill - Sanitary Sewer Line Trench: Umatilla st. 10' east of manhole 6.5						2.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1170	Backfill - Sanitary Sewer Line Trench: Umatilla st. 1' east of manhole 6.5						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1171	Backfill - Sanitary Sewer Line Trench: Umatilla st. 5' west of manhole 6.5						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1172	Backfill - Sanitary Sewer Line Trench: Umatilla st. 25' west of manhole 6.5						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1173		8/30/18	PUL17269		GP	8.0	140.0	5.5	132.9	6	95	95	DP
1174		8/30/18	PUL17269		GP	8.0	140.0	5.0	132.6	6	95	95	DP
1175		8/30/18	PUL17269		GP	8.0	140.0	5.4	138.3	6	99	95	DP
1176		8/30/18	PUL17269		GP	8.0	140.0	5.1	134.3	6	96	95	DP
1177		8/30/18	PUL17269		GP	8.0	140.0	5.0	134.7	6	96	95	DP
1178		8/30/18	PUL17269		GP	8.0	140.0	6.4	136.0	6	97	95	DP
1179		8/30/18	PUL17269		GP	8.0	140.0	4.9	138.2	6	99	95	DP
1180		8/30/18	PUL17269		GP	8.0	140.0	6.0	140.5	6	100	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1173	Backfill - Sanitary Sewer Line Trench: Umatilla st. 50' west of manhole 6.5						4.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1174	Backfill - Sanitary Sewer Line Trench: Umatilla st. 10' east of manhole 6						4.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1175	Backfill - Sanitary Sewer Line Trench: Umatilla st. 10' west of manhole 6						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1176	Backfill - Sanitary Sewer Line Trench: Golden hill dr. 100' south of manhole 5						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1177	Backfill - Sanitary Sewer Line Trench: Umatilla st. 100' west of manhole 6						3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1178	Backfill - Stormwater Line Trench: Umatilla st. 100' west of manhole 6						5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1179	Backfill - Stormwater Line Trench: Umatilla st. 50' west of manhole 6						5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1180	Backfill - Stormwater Line Trench: Umatilla st. 50' west of manhole 6						5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1181		8/30/18	PUL17269		GP	8.0	140.0	6.4	141.5	6	101	95	DP
1182		8/30/18	PUL17269		GP	8.0	140.0	6.2	141.2	6	101	95	DP
1183		8/30/18	PUL17269		GP	8.0	140.0	6.7	132.4	6	95	95	DP
1184		8/30/18	PUL17269		GP	8.0	140.0	6.3	133.9	6	96	95	DP
1185		8/30/18	PUL17-0177	A	ML	13.5	114.5	14.5	111.5	6	97	95	DP
1186		8/31/18	PUL17269		GP	8.0	140.0	5.2	137.7	6	98	95	DP
1187		8/31/18	PUL17269		GP	8.0	140.0	4.3	137.0	6	98	95	DP
1188		8/31/18	PUL17269		GP	8.0	140.0	4.1	133.0	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1181	Backfill - Utility Trench: Umatilla st. 50' west of manhole 6 southern utility trench						5.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1182	Backfill - Utility Trench: Umatilla st. 50' west of manhole 6 southern utility trench						5.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1183	Backfill - Stormwater Line Trench: Umatilla st. 40' west of manhole 6.5						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1184	Backfill - Stormwater Line Trench: Umatilla st. 10' west of manhole 6.5						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1185	Backfill - Stormwater Line Trench: Umatilla st. 50' west of manhole 7						1.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1186	Backfill - Utility Trench: Umatilla st. Northern utility trench 50' west of manhole 6.5						4.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1187	Backfill - Utility Trench: Umatilla st. Northern utility trench 50' west of manhole 6.5						4.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1188	Backfill - Utility Trench: Umatilla st. Sanitation trench 60' west of manhole 6.5						4.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1189		8/31/18	PUL17269		GP	8.0	140.0	4.9	132.7	6	95	95	DP
1190		8/31/18	PUL17269		GP	8.0	140.0	4.2	142.1	6	101	95	DP
1191		8/31/18	PUL17269		GP	8.0	140.0	5.5	135.3	6	97	95	DP
1192		8/31/18	PUL17269		GP	8.0	140.0	4.0	132.7	6	95	95	DP
1193		8/31/18	PUL17269		GP	8.0	140.0	5.4	134.4	6	96	95	DP
1194		8/31/18	PUL17269		GP	8.0	140.0	6.2	133.3	6	95	95	DP
1195		8/31/18	PUL17269		GP	8.0	140.0	5.3	132.6	6	95	95	DP
1196		8/31/18	PUL17269		GP	8.0	140.0	3.9	132.6	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1189	Backfill - Utility Trench: Umatilla st. Sanitation trench 40' east of manhole 6.0						5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1190	Backfill - Utility Trench: Umatilla st. Sanitation trench 10' east of manhole 6.0						5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1191	Backfill - Utility Trench: Umatilla st. Sanitation trench 1' east of manhole 6.0						5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1192	Backfill - Utility Trench: Umatilla st. Sanitation trench 3' south of manhole 6.0						4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1193	Backfill - Utility Trench: Umatilla st. Sanitation trench 1' west of manhole 6.0						4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1194	Backfill - Utility Trench: Umatilla st. Sanitation trench 15' west of manhole 6.0						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1195	Backfill - Stormwater Line Trench: Umatilla st. Sanitation trench 15' west of manhole 6.0						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1196	Backfill - Stormwater Line Trench: Umatilla st. Sanitation trench 3' west of manhole 6.0						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1197		8/31/18	PUL17269		GP	8.0	140.0	4.9	132.3	6	95	95	DP
1198		8/31/18	PUL17269		GP	8.0	140.0	6.8	137.3	6	98	95	DP
1199		8/31/18	PUL17269		GP	8.0	140.0	5.3	133.6	6	95	95	DP
1200		8/31/18	PUL17269		GP	8.0	140.0	4.6	132.9	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1197	Backfill - Stormwater Line Trench: Umatilla st. Northern utility trench 20' east of manhole 6.0						4.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1198	Backfill - Stormwater Line Trench: Umatilla st. Northern utility trench 20' east of manhole 6.0						4.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1199	Backfill - Utility Trench: Umatilla st 15' east of manhole 6. Southern Utility trench						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1200	Backfill - Utility Trench: Umatilla st 15' east of manhole 6. Southern Utility trench						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1201		8/31/18	PUL17269		GP	8.0	140.0	3.7	134.7	6	96	95	DP
1202		8/31/18	PUL17269		GP	8.0	140.0	4.6	135.2	6	97	95	DP
1203		8/31/18	PUL17269		GP	8.0	140.0	4.7	133.2	6	95	95	DP
1204		8/31/18	PUL17269		GP	8.0	140.0	3.8	137.6	6	98	95	DP
1205		8/31/18	PUL17269		GP	8.0	140.0	7.6	133.7	6	96	95	DP
1206		8/31/18	PUL17269		GP	8.0	140.0	6.1	137.4	6	98	95	DP
1207		8/31/18	PUL17269		GP	8.0	140.0	4.9	132.8	6	95	95	DP
1208		8/31/18	PUL17269		GP	8.0	140.0	5.3	138.3	6	99	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1201	Backfill - Stormwater Line Trench: Umatilla st 15' east of manhole 6.						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1202	Backfill - Stormwater Line Trench: Umatilla st 5' east of manhole 6.						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1203	Backfill - Stormwater Line Trench: Umatilla st 2' south of manhole 6.						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1204	Backfill - Stormwater Line Trench: Umatilla st 1' north of manhole 6.						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1205	Backfill - Stormwater Line Trench: Golden hills dr. 5' north of manhole 3						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1206	Backfill - Utility Trench: Umatilla st. 50' west of manhole 6.5. Southern utility trench						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1207	Backfill - Utility Trench: Umatilla st. 50' west of manhole 6.5. Southern utility trench						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1208	Backfill - Sanitary Sewer Line Trench: Umatilla st. 1' north of manhole 6. Sanitation trench						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1209		8/31/18	PUL17269		GP	8.0	140.0	5.3	133.6	6	95	95	DP
1210		8/31/18	PUL17269		GP	8.0	140.0	4.5	133.5	6	95	95	DP
1211		8/31/18	PUL17-0177	A	ML	13.5	114.5	14.4	110.4	6	96	95	DP
1212		9/4/18	PUL17-0177	A	ML	13.5	114.5	12.7	108.5	6	95	95	DP
1213		9/4/18	PUL17-0177	A	ML	13.5	114.5	15.2	113.3	6	99	95	DP
1214		9/4/18	PUL17269		GP	8.0	140.0	4.8	136.2	6	97	95	DP
1215		9/4/18	PUL17269		GP	8.0	140.0	4.4	132.4	6	95	95	DP
1216		9/4/18	PUL17-0177	A	ML	13.5	114.5	10.8	113.1	6	99	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1209	Backfill - Stormwater Line Trench: Umatilla st. 1' north of manhole 6. Sanitation trench						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1210	Backfill - Stormwater Line Trench: Umatilla st. 2' south of manhole 6. Sanitation trench						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1211	Backfill - Sanitary Sewer Line Trench: Golden hills dr. South of cayuse st. Sanitation trench						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1212	Backfill - Stormwater Line Trench: Umatilla st between man hole 6 and 6.5. Storm drain trench. 20' west of MH 6.5						2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1213	Backfill - Stormwater Line Trench: Umatilla st between man hole 6 and 6.5. Storm drain trench. 100' west of MH 6.5						2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1214	Backfill - Stormwater Line Trench: golden Hills dr between man hole 3 and 5. North 15' of manhole 3						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1215	Backfill - Stormwater Line Trench: golden Hills dr between man hole 3 and 5. North 100' of manhole 3						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1216	Backfill - Stormwater Line Trench: Umatilla st eastern cul de sac. 30' west of manhole 7						0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1217		9/4/18	PUL17-0177	A	ML	13.5	114.5	13.1	110.0	6	96	95	DP
1218		9/4/18	PUL17-0177	A	ML	13.5	114.5	12.8	111.3	6	97	95	DP
1219		9/4/18	PUL17-0177	A	ML	13.5	114.5	11.6	115.9	6	101	95	DP
1220		9/4/18	PUL17-0177	A	ML	13.5	114.5	10.6	109.9	6	96	95	DP
1221		9/4/18	PUL17269		GP	8.0	140.0	5.8	133.5	6	95	95	DP
1222		9/4/18	PUL17269		GP	8.0	140.0	5.4	135.1	6	97	95	DP
1223		9/4/18	PUL17-0177	A	ML	13.5	114.5	19.6	108.4	6	95	95	DP
1224		9/4/18	PUL17-0177	A	ML	13.5	114.5	15.1	114.3	6	100	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1217	Backfill - Utility Trench: Umatilla st eastern cul de sac. 30' west of manhole 7. North utility trench						0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1218	Backfill - Utility Trench: Umatilla st eastern cul de sac. 50' west of manhole 7. Souther utility trench						0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1219	Backfill - Stormwater Line Trench: Umatilla st eastern cul de sac. 100' west of manhole 7.						0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1220	Backfill - Utility Trench: Umatilla st eastern cul de sac. 120' west of manhole 7. Northern utility trench						0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1221	Backfill - Utility Trench: Golden Hills dr storm drain trench. North 120' manhole 4						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1222	Backfill - Utility Trench: Golden Hills dr storm drain trench. North 50' manhole 4						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1223	Backfill - Stormwater Line Trench: Storm drain trench between man hole 6.5 and 6. 20' west of man hole 6.5						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1224	Backfill - Utility Trench: Storm drain trench between man hole 6.5 and 6. 20' east of man hole 6. Northern utility trench						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1225		9/5/18	PUL17-0177	A	ML	13.5	114.5	17.5	108.7	6	95	95	DP
1226		9/5/18	PUL17-0177	A	ML	13.5	114.5	17.7	111.0	6	97	95	DP
1227		9/6/18	PUL17269		GP	8.0	140.0	5.1	133.2	6	95	95	DP
1228		9/6/18	PUL17269		GP	8.0	140.0	5.3	132.8	6	95	95	DP
1229		9/6/18	PUL17269		GP	8.0	140.0	7.5	134.4	6	96	95	DP
1230		9/6/18	PUL17269		GP	8.0	140.0	4.5	132.9	6	95	95	DP
1231		9/6/18	PUL17269		GP	8.0	140.0	6.6	135.7	6	97	95	DP
1232		9/6/18	PUL17269		GP	8.0	140.0	6.8	140.2	6	100	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1225	Backfill - Stormwater Line Trench: Umatilla st. 15' west of manhole 6.5. Storm drain trench.						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1226	Backfill - Utility Trench: Umatilla st. 25' west of manhole 6.5. Southern utility trench						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1227	Backfill - Stormwater Line Trench: Golden Hills dr. North of manhole 4 100'						4.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1228	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. North of manhole 4 100'						5.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1229	Backfill - Stormwater Line Trench: Golden Hills dr. North of manhole 4 30'						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1230	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. North of manhole 4 30'						5.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1231	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. West of manhole 4 2'						5.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1232	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. East of manhole 4 3'						5.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1233		9/6/18	PUL17269		GP	8.0	140.0	5.7	133.7	6	96	95	DP
1234		9/6/18	PUL17269		GP	8.0	140.0	3.9	133.3	6	95	95	DP
1235		9/6/18	PUL17269		GP	8.0	140.0	4.5	132.3	6	95	95	DP
1236		9/6/18	PUL17-0177	A	ML	13.5	114.5	14.3	113.6	6	99	95	DP
1237		9/6/18	PUL17269		GP	8.0	140.0	5.2	150.7	6	108	95	DP
1238		9/6/18	PUL17269		GP	8.0	140.0	3.6	154.1	6	110	95	DP
1239		9/6/18	PUL17269		GP	8.0	140.0	4.7	145.9	6	104	95	DP
1240		9/6/18	PUL17269		GP	8.0	140.0	2.8	133.3	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1233	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. South of manhole 4 20'						6.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1234	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. East of manhole 4 20'						6.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1235	Backfill - Sanitary Sewer Line Trench: umatilla st. East of manhole 4 30'						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1236	Backfill - Sanitary Sewer Line Trench: umatilla st. East of manhole 6 30'						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1237	Backfill - Manhole: Umatilla st. 1' north of manhole 7						3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1238	Backfill - Manhole: Umatilla st. 3' north of manhole 7						3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1239	Backfill - Manhole: Umatilla st. 1' south of manhole 7						3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1240	Backfill - Manhole: Cayuse st. 2nd water box from the west. West 2'						1.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1241		9/6/18	PUL17269		GP	8.0	140.0	4.1	137.7	6	98	95	DP
1242		9/6/18	PUL17269		GP	8.0	140.0	5.5	135.3	6	97	95	DP
1243		9/6/18	PUL17269		GP	8.0	140.0	5.9	134.7	6	96	95	DP
1244		9/7/18	PUL17-0177	A	ML	13.5	114.5	13.9	108.4	6	95	95	DP
1245		9/7/18	PUL17-0177	A	ML	13.5	114.5	9.4	110.5	6	97	95	DP
1246		9/7/18	PUL17-0177	A	ML	13.5	114.5	5.9	132.4	6	116	95	DP
1247		9/7/18	PUL17-0177	A	ML	13.5	114.5	4.7	139.2	6	122	95	DP
1248		9/7/18	PUL17-0177	A	ML	13.5	114.5	4.9	137.2	6	120	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1241	Backfill - Manhole: Cayuse st. 2nd water box from the west. West 1'						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1242	Backfill - Manhole: Cayuse st. 2nd water box from the west. East 1'						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1243	Backfill - Manhole: Cayuse st. 1st water box from the west. West 1'						5.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1244	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. Storm drain trench north of wallowa st						1.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1245	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. Storm drain trench north of wallowa st						2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1246	Backfill - Sanitary Sewer Line Trench: Cayuse st furthest west storm box. 1' east						3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1247	Backfill - Sanitary Sewer Line Trench: Waha st furthest west storm box. 2' south						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1248	Backfill - Sanitary Sewer Line Trench: Waha st furthest west storm box. 2' north						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1249		9/7/18	PUL17-0177	A	ML	13.5	114.5	5.4	134.7	6	118	95	DP
1250		9/7/18	PUL17-0177	A	ML	13.5	114.5	4.9	133.2	6	116	95	DP
1251		9/7/18	PUL17-0177	A	ML	13.5	114.5	4.0	133.2	6	116	95	DP
1252		9/7/18	PUL17269		GP	8.0	140.0	4.3	132.5	6	95	95	DP
1253		9/7/18	PUL17269		GP	8.0	140.0	4.2	134.4	6	96	95	DP
1254		9/10/18	PUL17269		GP	8.0	140.0	7.4	132.7	6	95	95	DP
1255		9/10/18	PUL17269		GP	8.0	140.0	7.5	132.8	6	95	95	DP
1256		9/10/18	PUL17269		GP	8.0	140.0	5.5	133.8	6	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1249	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. Storm drain tie in. Eastern half						0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1250	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. Water line tie in. Western half						0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1251	Backfill - Sanitary Sewer Line Trench: Cayuse st western most storm box. West 1’						3.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1252	Backfill - Stormwater Line Trench: Cayuse st. Second storm box east. Southern box. 1’ west							At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1253	Backfill - Stormwater Line Trench: Cayuse st. Second storm box east. Southern box. 1’ east							At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1254	Backfill - Sanitary Sewer Line Trench: Golden hills dr north of umatilla st sanitation trench						4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1255	Backfill - Sanitary Sewer Line Trench: Golden hills dr north of umatilla st sanitation trench						5.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1256	Backfill - Waterline Trench: Golden hills dr south of waha st. Waterline trench						4.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1257		9/10/18	PUL17269		GP	8.0	140.0	4.7	134.1	6	96	95	DP
1258		9/10/18	PUL17269		GP	8.0	140.0	5.2	132.6	6	95	95	DP
1259		9/10/18	PUL17269		GP	8.0	140.0	5.1	132.8	6	95	95	DP
1260		9/10/18	PUL17269		GP	8.0	140.0	4.0	132.8	6	95	95	DP
1261		9/10/18	PUL17269		GP	8.0	140.0	6.8	133.4	6	95	95	DP
1262		9/10/18	PUL17269		GP	8.0	140.0	7.1	134.4	6	96	95	DP
1263		9/10/18	PUL17269		GP	8.0	140.0	7.3	139.7	6	100	95	DP
1264		9/10/18	PUL17269		GP	8.0	140.0	6.8	132.4	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1257	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. North of umatilla st						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1258	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. And cayuse st						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1259	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. North of cayuse st						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1260	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. North of cayuse st						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1261	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. And wallowa						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1262	Backfill - Sanitary Sewer Line Trench: Golden Hills dr. And wallowa						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1263	Backfill - Waterline Trench: Golden Hills dr water line tie in north of wallowa st						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1264	Backfill - Waterline Trench: Golden Hills dr water line trench between wallowa and waha						2.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1265		9/10/18	PUL17269		GP	8.0	140.0	5.0	132.4	6	95	95	DP
1266		9/10/18	PUL17269		GP	8.0	140.0	3.6	132.4	6	95	95	DP
1267		9/10/18	PUL17269		GP	8.0	140.0	5.5	133.7	6	96	95	DP
1268		9/10/18	PUL17269		GP	8.0	140.0	5.6	134.1	6	96	95	DP
1269		9/10/18	PUL17269		GP	8.0	140.0	6.3	133.4	6	95	95	DP
1270		9/11/18	PUL17269		GP	8.0	140.0	4.8	133.4	6	95	95	DP
1271		9/11/18	PUL17269		GP	8.0	140.0	5.3	134.6	6	96	95	DP
1272		9/14/18	PUL17269		GP	8.0	140.0	6.9	134.8	6	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1265	Backfill - Waterline Trench: Golden Hills dr water line trench north of waha							At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1266	Backfill - Waterline Trench: Golden Hills dr water line trench north of waha							At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1267	Backfill - Waterline Trench: Golden Hills dr water line trench north of waha							At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1268	Backfill - Waterline Trench: Golden Hills dr water line trench north of waha							At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1269	Backfill - Waterline Trench: Golden Hills dr water line trench north of wallowa st						2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1270	Backfill - Waterline Trench: Golden Hills dr south of cayuse st						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1271	Backfill - Waterline Trench: Golden Hills dr south of cayuse st water line trench						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1272	Backfill - Waterline Trench: Wallowa st waterline trench						3.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1273		9/14/18	PUL17269		GP	8.0	140.0	6.3	133.2	6	95	95	DP
1274		9/14/18	PUL17269		GP	8.0	140.0	7.8	134.4	6	96	95	DP
1275		9/14/18	PUL17269		GP	8.0	140.0	3.8	147.1	6	105	95	DP
1276		9/14/18	PUL17269		GP	8.0	140.0	8.6	138.7	6	99	95	DP
1277		9/14/18	PUL17269		GP	8.0	140.0	4.9	133.9	6	96	95	DP
1278		9/14/18	PUL17269		GP	8.0	140.0	5.8	132.7	6	95	95	DP
1279		9/14/18	PUL17269		GP	8.0	140.0	5.6	134.5	6	96	95	DP
1280		9/14/18	PUL17269		GP	8.0	140.0	7.3	135.0	6	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1273	Backfill - Waterline Trench: Wallowa st waterline trench						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1274	Backfill - Waterline Trench: Wallowa st waterline trench						2.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1275	Backfill - Waterline Trench: Golden Hills dr. waterline trench						1.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1276	Backfill - Waterline Trench: Wallowa st. Waterline trench.						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1277	Backfill - Waterline Trench: Wallowa st. Waterline trench.						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1278	Backfill - Waterline Trench: Wallowa st. Waterline trench.						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1279	Backfill - Waterline Trench: Wallowa st. Waterline trench.						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1280	Backfill - Waterline Trench: Wallowa st waterline trench						2.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1281		9/14/18	PUL17269		GP	8.0	140.0	6.3	133.7	6	96	95	DP
1282		9/15/18	PUL17269		GP	8.0	140.0	4.2	126.5	6	90	95	DF
1283		9/15/18	PUL17269		GP	8.0	140.0	5.5	130.8	6	93	95	DF
1284		9/15/18	PUL17269		GP	8.0	140.0	4.5	130.2	6	93	95	DF
1285		9/15/18	PUL17269		GP	8.0	140.0	7.8	137.0	6	98	95	DP
1286		9/20/18	PUL17269		GP	8.0	140.0	4.7	133.0	6	95	95	DP
1287		9/20/18	PUL17269		GP	8.0	140.0	5.3	132.6	6	95	95	DP
1288		9/20/18	PUL17269		GP	8.0	140.0	4.1	132.9	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1281	Backfill - Waterline Trench: Waha st waterline trench						2.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1282	Backfill - Waterline Trench: Second row up, waterline trench						1.0	Foot below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			SAUL, NICK	
1283	Backfill - Waterline Trench: Second row up, waterline trench						1.0	Foot below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			SAUL, NICK	
1284	Backfill - Waterline Trench: Second row up, waterline trench						1.0	Foot below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			SAUL, NICK	
1285	Backfill - Waterline Trench: First row up, waterline trench						3.0	Foot below finish grade	Instrotek / X3500 / 3524 / 6/30/2018			SAUL, NICK	
1286	Backfill - Waterline Trench: Waha st waterline trench						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1287	Backfill - Waterline Trench: Waha st waterline trench						0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1288	Backfill - Waterline Trench: Waha st waterline trench						0.5	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								
DF: Density Fail													

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1289		9/20/18	PUL17269		GP	8.0	140.0	4.2	133.8	6	96	95	DP
1290		9/20/18	PUL17269		GP	8.0	140.0	5.6	136.7	6	98	95	DP
1291		9/20/18	PUL17269		GP	8.0	140.0	5.9	136.8	6	98	95	DP
1292		9/20/18	PUL17269		GP	8.0	140.0	5.0	135.5	6	97	95	DP
1293		9/20/18	PUL17269		GP	8.0	140.0	4.4	136.3	6	97	95	DP
1294		9/20/18	PUL17269		GP	8.0	140.0	8.0	135.2	6	97	95	DP
1295		9/20/18	PUL17269		GP	8.0	140.0	6.1	133.0	6	95	95	DP
1296		9/20/18	PUL17269		GP	8.0	140.0	4.8	136.5	6	98	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1289	Backfill - Waterline Trench: Waha st waterline trench						0.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1290	Backfill - Waterline Trench: Golden hills dr waterline trench						0.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1291	Backfill - Waterline Trench: Golden hills dr waterline trench						0.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1292	Backfill - Waterline Trench: Golden hills dr waterline trench						0.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1293	Backfill - Waterline Trench: Cayuse st waterline trench						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1294	Backfill - Waterline Trench: Cayuse st waterline trench						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1295	Backfill - Waterline Trench: Cayuse st waterline trench						1.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1296	Backfill - Waterline Trench: Cayuse st waterline trench						1.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1297		9/20/18	PUL17269		GP	8.0	140.0	4.1	132.6	6	95	95	DP
1298		9/20/18	PUL17269		GP	8.0	140.0	5.0	132.5	6	95	95	DP
1299		9/20/18	PUL17269		GP	8.0	140.0	4.9	133.0	6	95	95	DP
1300		9/20/18	PUL17269		GP	8.0	140.0	4.4	135.6	6	97	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician
1297	Backfill - Waterline Trench: Cayuse st waterline trench						1.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1298	Backfill - Waterline Trench: Umatilla st waterline trench						1.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1299	Backfill - Waterline Trench: Umatilla st waterline trench						1.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1300	Backfill - Waterline Trench: Umatilla st waterline trench						1.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1301		9/20/18	PUL17269		GP	8.0	140.0	3.7	134.1	6	96	95	DP
1302		9/21/18	PUL17269		GP	8.0	140.0	5.4	133.9	6	96	95	DP
1303		9/21/18	PUL17269		GP	8.0	140.0	4.4	137.2	6	98	95	DP
1304		9/21/18	PUL17269		GP	8.0	140.0	6.3	133.0	6	95	95	DP
1305		9/21/18	PUL17269		GP	8.0	140.0	6.4	135.2	6	97	95	DP
1306		9/21/18	PUL17269		GP	8.0	140.0	4.9	134.3	6	96	95	DP
1307		9/21/18	PUL17269		GP	8.0	140.0	4.2	134.4	6	96	95	DP
1308		9/21/18	PUL17269		GP	8.0	140.0	4.8	132.5	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1301	Backfill - Waterline Trench: Umatilla st waterline trench						1.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1302	Backfill - Waterline Trench: Golden hills dr. Waterline trench at cayuse st							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1303	Backfill - Waterline Trench: Cayuse st water line trench						3.5	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1304	Backfill - Waterline Trench: Golden Hills dr water line trench						0.0	At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1305	Backfill - Waterline Trench: Golden Hills dr water line trench						0.0	At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1306	Backfill - Waterline Trench: Golden Hills dr water line trench						0.0	At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1307	Backfill - Waterline Trench: Waha st water line trench						1.0	At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1308	Backfill - Waterline Trench: Golden hills dr water line trench						1.0	At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1309		9/21/18	PUL17269		GP	8.0	140.0	6.5	132.6	6	95	95	DP
1310		9/21/18	PUL17269		GP	8.0	140.0	5.1	132.4	6	95	95	DP
1311		9/21/18	PUL17269		GP	8.0	140.0	5.1	132.6	6	95	95	DP
1312		9/21/18	PUL17269		GP	8.0	140.0	5.9	135.2	6	97	95	DP
1313		9/21/18	PUL17269		GP	8.0	140.0	6.4	139.6	6	100	95	DP
1314		9/21/18	PUL17269		GP	8.0	140.0	4.4	134.2	6	96	95	DP
1315		9/21/18	PUL17269		GP	8.0	140.0	6.6	132.6	6	95	95	DP
1316		9/21/18	PUL17269		GP	8.0	140.0	3.9	132.8	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1309	Backfill - Waterline Trench: Golden hills dr water line trench							At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1310	Backfill - Waterline Trench: Golden hills dr waterline trench						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1311	Backfill - Waterline Trench: Waha st waterline trench						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1312	Backfill - Waterline Trench: Waha st waterline trench						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1313	Backfill - Waterline Trench: Waha st waterline trench						1.0	Below finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1314	Backfill - Waterline Trench: Waha st waterline trench						0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1315	Backfill - Waterline Trench: Golden hills dr waterline trench						0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1316	Backfill - Waterline Trench: Golden hills dr waterline trench						0.0	At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1317		9/24/18	PUL17269		GP	8.0	140.0	7.4	136.3	6	97	95	DP
1318		9/24/18	PUL17269		GP	8.0	140.0	5.8	133.1	6	95	95	DP
1319		9/24/18	PUL17269		GP	8.0	140.0	5.6	142.4	6	102	95	DP
1320		9/24/18	PUL17269		GP	8.0	140.0	5.2	133.9	6	96	95	DP
1321		9/24/18	PUL17-0177	A	ML	13.5	114.5	5.2	134.4	6	117	95	DP
1322		9/24/18	PUL17-0177	A	ML	13.5	114.5	5.8	137.1	6	120	95	DP
1323		9/24/18	PUL17269		GP	8.0	140.0	5.0	133.5	6	95	95	DP
1324		9/24/18	PUL17269		GP	8.0	140.0	6.4	136.7	6	98	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated			Field Technician
1317	Backfill - Waterline Trench: Golden hills dr at cayuse st waterline trench						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1318	Backfill - Waterline Trench: Golden hills dr at cayuse st waterline trench						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1319	Backfill - Waterline Trench: cayuse st waterline trench							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1320	Backfill - Waterline Trench: cayuse st waterline trench							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1321	Backfill - Waterline Trench: Wallowa st water line trench							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1322	Backfill - Waterline Trench: Wallowa st water line trench							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1323	Backfill - Waterline Trench: Wallowa st water line trench							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
1324	Backfill - Waterline Trench: Wallowa st water line trench							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1325		9/24/18	PUL17269		GP	8.0	140.0	5.5	132.6	6	95	95	DP
1326		9/24/18	PUL17269		GP	8.0	140.0	5.4	132.7	6	95	95	DP
1327		9/24/18	PUL17269		GP	8.0	140.0	5.1	132.7	6	95	95	DP
1328		9/24/18	PUL17269		GP	8.0	140.0	5.1	138.6	6	99	95	DP
1329		9/24/18	PUL17269		GP	8.0	140.0	5.4	132.4	6	95	95	DP
1330		9/25/18	PUL17269		GP	8.0	140.0	4.7	141.1	6	101	95	DP
1331		9/25/18	PUL17269		GP	8.0	140.0	4.6	133.4	6	95	95	DP
1332		9/25/18	PUL17269		GP	8.0	140.0	3.8	135.0	6	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1325	Backfill - Waterline Trench: Wallowa st water line trench							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1326	Backfill - Waterline Trench: Wallowa st water line trench							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1327	Backfill - Manhole: Wallowa st western most manholes							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1328	Backfill - Manhole: Wallowa st western most manholes							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1329	Backfill - Manhole: Wallowa st western most manholes							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1330	Backfill - Waterline Trench: Umatilla st waterline trench							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1331	Backfill - Waterline Trench: Umatilla st waterline trench							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1332	Backfill - Waterline Trench: Umatilla st waterline trench							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1333		9/25/18	PUL17269		GP	8.0	140.0	5.1	133.7	6	96	95	DP
1334		9/25/18	PUL17269		GP	8.0	140.0	4.3	133.6	6	95	95	DP
1335		9/25/18	PUL17269		GP	8.0	140.0	6.1	143.5	6	102	95	DP
1336		9/25/18	PUL17269		GP	8.0	140.0	4.5	133.3	6	95	95	DP
1337		9/25/18	PUL17269		GP	8.0	140.0	5.7	141.3	6	101	95	DP
1338		9/25/18	PUL17269		GP	8.0	140.0	5.0	132.8	6	95	95	DP
1339		10/4/18	PUL17269		GP	8.0	140.0	4.1	133.4	6	95	95	DP
1340		10/4/18	PUL17269		GP	8.0	140.0	4.6	134.8	6	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1333	Backfill - Waterline Trench: Umatilla st waterline trench							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1334	Backfill - Waterline Trench: Umatilla st waterline trench							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1335	Backfill - Waterline Trench: Umatilla st waterline trench							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1336	Backfill - Waterline Trench: Umatilla st waterline trench						3.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1337	Backfill - Waterline Trench: Umatilla st waterline trench						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1338	Backfill - Waterline Trench: Golden hills dr waterline trench						2.0	Below finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1339	Backfill - Stormwater Line Trench: Golden hills dr south of umatilla							At finished road subgrade		Instrotek / X3500 / 718 / 3/21/2018		PAULSEN, ZACH	
1340	Backfill - Stormwater Line Trench: Golden hills dr south of umatilla							At finished road subgrade		Instrotek / X3500 / 718 / 3/21/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1341		10/4/18	PUL17269		GP	8.0	140.0	3.7	138.1	6	99	95	DP
1342		10/4/18	PUL17269		GP	8.0	140.0	5.1	138.9	6	99	95	DP
1343		10/4/18	PUL17269		GP	8.0	140.0	3.2	136.3	6	97	95	DP
1344		10/4/18	PUL17269		GP	8.0	140.0	4.3	139.3	6	100	95	DP
1345		10/4/18	PUL17269		GP	8.0	140.0	3.7	133.1	6	95	95	DP
1346		10/4/18	PUL17269		GP	8.0	140.0	4.0	131.6	6	94	90	DP
1347		10/4/18	PUL17269		GP	8.0	140.0	4.6	130.7	6	93	90	DP
1348		10/4/18	PUL17269		GP	8.0	140.0	4.2	133.4	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1341	Backfill - Waterline Trench: Golden hills dr south of umatilla						0.5	Below finished road subgrade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
1342	Backfill - Waterline Trench: Golden hills dr south of umatilla						0.5	Below finished road subgrade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
1343	Backfill - Stormwater Line Trench: Golden hills dr at umatilla						2.0	Below finished road subgrade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
1344	Backfill - Stormwater Line Trench: Golden hills dr at umatilla						0.5	Below finished road subgrade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
1345	Backfill - Waterline Trench: Umatilla st western fire hydrant						0.5	Below finished road subgrade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
1346	Backfill - Waterline Trench: West of golden hills dr. Storm trench to pond						2.5	Below finished road subgrade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
1347	Backfill - Waterline Trench: West of golden hills dr. Storm trench to pond						2.5	Below finished road subgrade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
1348	Backfill - Manhole: Umatilla st north of manhole 6 2'							At finish road subgrade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1349		10/4/18	PUL17269		GP	8.0	140.0	5.5	132.3	6	95	95	DP
1350		10/4/18	PUL17269		GP	8.0	140.0	4.5	134.6	6	96	95	DP
1351		10/4/18	PUL17269		GP	8.0	140.0	3.6	132.3	6	95	95	DP
1352		10/11/18	PUL17269		GP	8.0	140.0	7.2	133.4	6	95	95	DP
1353		10/11/18	PUL17269		GP	8.0	140.0	7.6	134.5	6	96	95	DP
1354		10/11/18	PUL17269		GP	8.0	140.0	4.0	132.6	6	95	95	DP
1355		10/11/18	PUL17269		GP	8.0	140.0	3.3	132.9	6	95	95	DP
1356		10/13/18	PUL17269		GP	8.0	140.0	4.9	139.2	6	99	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1349	Backfill - Manhole: Umatilla st north of manhole 6 storm 3'							At finish road subgrade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
1350	Backfill - Manhole: Waha st catch basin							At finish road subgrade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
1351	Backfill - Manhole: Waha st catch basin							At finish road subgrade	Instrotek / X3500 / 718 / 3/21/2018			PAULSEN, ZACH	
1352	Backfill - Manhole: Golden hills drive north of umatilla st							At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1353	Backfill - Manhole: Golden hills drive north of umatilla st							At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1354	Backfill - Utility Trench: umatilla st norther utility							At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1355	Backfill - Utility Trench: umatilla st northern utility							At finish road subgrade	Instrotek / X3500 / 3524 / 6/30/2018			PAULSEN, ZACH	
1356	Fill - P-152 Excavation, Subgrade, and Embankment: Waha waterline							Approximately top of trench	Troxler / 3430 / 37625 / 3/21/2018			ROSS, JOSH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1357		10/22/18	PUL18-0205		GP	7.0	142.0	3.9	137.4	4	97	95	DP
1358		10/22/18	PUL18-0205		GP	7.0	142.0	4.4	135.2	4	95	95	DP
1359		10/22/18	PUL18-0205		GP	7.0	142.0	3.6	134.7	4	95	95	DP
1360		10/22/18	PUL18-0205		GP	7.0	142.0	2.7	135.5	4	95	95	DP
1361		10/22/18	PUL18-0205		GP	7.0	142.0	3.6	138.1	4	97	95	DP
1362		10/22/18	PUL18-0205		GP	7.0	142.0	3.2	134.9	4	95	95	DP
1363		10/22/18	PUL18-0205		GP	7.0	142.0	3.6	139.5	4	98	95	DP
1364		10/22/18	PUL18-0205		GP	7.0	142.0	2.9	137.1	4	97	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1357	Fill - Subgrade: Golden hills dr eastern curb side							At finish road subgrade		Instrotek / X3500 / 718 / 3/21/2018		PAULSEN, ZACH	
1358	Fill - Subgrade: Golden hills dr eastern curb side							At finish road subgrade		Instrotek / X3500 / 718 / 3/21/2018		PAULSEN, ZACH	
1359	Fill - Subgrade: Golden hills dr eastern curb side							At finish road subgrade		Instrotek / X3500 / 718 / 3/21/2018		PAULSEN, ZACH	
1360	Fill - Subgrade: Golden hills dr eastern curb side							At finish road subgrade		Instrotek / X3500 / 718 / 3/21/2018		PAULSEN, ZACH	
1361	Fill - Subgrade: Golden hills dr eastern curb side							At finish road subgrade		Instrotek / X3500 / 718 / 3/21/2018		PAULSEN, ZACH	
1362	Fill - Subgrade: Golden hills dr eastern curb side							At finish road subgrade		Instrotek / X3500 / 718 / 3/21/2018		PAULSEN, ZACH	
1363	Fill - Subgrade: Golden hills dr eastern curb side							At finish road subgrade		Instrotek / X3500 / 718 / 3/21/2018		PAULSEN, ZACH	
1364	Fill - Subgrade: Golden hills dr eastern curb side							At finish road subgrade		Instrotek / X3500 / 718 / 3/21/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1365		10/22/18	PUL18-0205		GP	7.0	142.0	4.2	135.7	4	96	95	DP
1366		10/29/18	PUL18-0205		GP	7.0	142.0	6.6	135.2	4	95	95	DP
1367		10/29/18	PUL18-0205		GP	7.0	142.0	4.1	134.6	4	95	95	DP
1368		10/29/18	PUL18-0205		GP	7.0	142.0	3.2	134.4	4	95	95	DP
1369		10/29/18	PUL18-0205		GP	7.0	142.0	3.2	134.3	4	95	95	DP
1370		10/29/18	PUL18-0205		GP	7.0	142.0	3.4	134.8	4	95	95	DP
1371		10/29/18	PUL18-0205		GP	7.0	142.0	3.6	135.2	4	95	95	DP
1372		10/29/18	PUL18-0205		GP	7.0	142.0	4.6	138.0	4	97	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1365	Fill - Subgrade: Golden hills dr eastern curb side							At finish road subgrade		Instrotek / X3500 / 718 / 3/21/2018		PAULSEN, ZACH	
1366	Fill - Subgrade: Umatilla road. South side curbs							At finish road grade		Instrotek / X3500 / 718 / 3/21/2018		PAULSEN, ZACH	
1367	Fill - Subgrade: Umatilla road. South side curbs							At finish road grade		Instrotek / X3500 / 718 / 3/21/2018		PAULSEN, ZACH	
1368	Fill - Subgrade: Umatilla road. South side curbs							At finish road grade		Instrotek / X3500 / 718 / 3/21/2018		PAULSEN, ZACH	
1369	Fill - Subgrade: Umatilla road. South side curbs							At finish road grade		Instrotek / X3500 / 718 / 3/21/2018		PAULSEN, ZACH	
1370	Fill - Subgrade: Umatilla road. South side curb							At finish road grade		Troxler / 3430 / 37625 / 3/21/2018		PAULSEN, ZACH	
1371	Fill - Subgrade: Umatilla road. North side curb							At finish road grade		Troxler / 3430 / 37625 / 3/21/2018		PAULSEN, ZACH	
1372	Fill - Subgrade: Umatilla road. North side curb							At finish road grade		Troxler / 3430 / 37625 / 3/21/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1373		10/29/18	PUL18-0205		GP	7.0	142.0	4.2	135.0	4	95	95	DP
1374		10/29/18	PUL18-0205		GP	7.0	142.0	3.3	141.3	4	100	95	DP
1375		10/29/18	PUL18-0205		GP	7.0	142.0	3.5	137.9	4	97	95	DP
1376		10/29/18	PUL18-0205		GP	7.0	142.0	3.5	139.4	4	98	95	DP
1377		10/29/18	PUL18-0205		GP	7.0	142.0	3.6	135.7	4	96	95	DP
1378		10/29/18	PUL18-0205		GP	7.0	142.0	3.7	138.8	4	98	95	DP
1379		10/29/18	PUL18-0205		GP	7.0	142.0	4.5	137.8	4	97	95	DP
1380		10/29/18	PUL18-0205		GP	7.0	142.0	3.6	135.1	6	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1373	Fill - Subgrade: Umatilla road. North side curb							At finish road grade		Troxler / 3430 / 37625 / 3/21/2018		PAULSEN, ZACH	
1374	Fill - Subgrade: Waha road. East of side of radius							At finish road grade		Troxler / 3430 / 37625 / 3/21/2018		PAULSEN, ZACH	
1375	Fill - Subgrade: Waha road. West of radius. Center of road							At finish road grade		Troxler / 3430 / 37625 / 3/21/2018		PAULSEN, ZACH	
1376	Fill - Subgrade: Waha road. West of radius. South of center of road							At finish road grade		Troxler / 3430 / 37625 / 3/21/2018		PAULSEN, ZACH	
1377	Fill - Subgrade: Waha road. West of radius. North of center of road							At finish road grade		Troxler / 3430 / 37625 / 3/21/2018		PAULSEN, ZACH	
1378	Fill - Subgrade: Waha road. West of radius. Center of road							At finish road grade		Troxler / 3430 / 37625 / 3/21/2018		PAULSEN, ZACH	
1379	Fill - Subgrade: Waha road. West of radius. Center of road							At finish road grade		Troxler / 3430 / 37625 / 3/21/2018		PAULSEN, ZACH	
1380	Fill - Subgrade: Golden Hills drive. At center line of road							At finish grade		Troxler / 3430 / 37625 / 3/21/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1381		10/29/18	PUL18-0205		GP	7.0	142.0	4.0	144.9	4	102	95	DP
1382		10/29/18	PUL18-0205		GP	7.0	142.0	3.5	142.5	4	100	95	DP
1383		10/29/18	PUL18-0205		GP	7.0	142.0	4.0	142.0	4	100	95	DP
1384		10/29/18	PUL18-0205		GP	7.0	142.0	3.1	145.7	4	103	95	DP
1385		10/29/18	PUL18-0205		GP	7.0	142.0	4.1	144.0	4	101	95	DP
1386		10/29/18	PUL18-0205		GP	7.0	142.0	3.4	142.5	4	100	95	DP
1387		10/29/18	PUL18-0205		GP	7.0	142.0	3.7	145.1	4	102	95	DP
1388		10/29/18	PUL18-0205		GP	7.0	142.0	3.5	144.2	4	102	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1381	Fill - Subgrade: Golden Hills drive. West of center line of road							At finish grade	Troxler / 3430 / 37625 / 3/21/2018			PAULSEN, ZACH	
1382	Fill - Subgrade: Golden Hills drive. East of center line of road							At finish grade	Troxler / 3430 / 37625 / 3/21/2018			PAULSEN, ZACH	
1383	Fill - Subgrade: Golden Hills drive. West of center line of road							At finish grade	Troxler / 3430 / 37625 / 3/21/2018			PAULSEN, ZACH	
1384	Fill - Subgrade: Golden Hills drive. East of center line of road							At finish grade	Troxler / 3430 / 37625 / 3/21/2018			PAULSEN, ZACH	
1385	Fill - Subgrade: Golden Hills drive. West of center line of road							At finish grade	Troxler / 3430 / 37625 / 3/21/2018			PAULSEN, ZACH	
1386	Fill - Subgrade: Golden Hills drive. East of center line of road							At finish grade	Troxler / 3430 / 37625 / 3/21/2018			PAULSEN, ZACH	
1387	Fill - Subgrade: Golden Hills drive. West of center line of road							At finish grade	Troxler / 3430 / 37625 / 3/21/2018			PAULSEN, ZACH	
1388	Fill - Subgrade: Golden Hills drive. East of center line of road							At finish grade	Troxler / 3430 / 37625 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1389		10/29/18	PUL18-0205		GP	7.0	142.0	3.7	135.1	4	95	95	DP
1390		10/29/18	PUL18-0205		GP	7.0	142.0	4.1	141.4	4	100	95	DP
1391		10/29/18	PUL18-0205		GP	7.0	142.0	3.5	136.1	4	96	95	DP
1392		10/29/18	PUL18-0205		GP	7.0	142.0	3.2	135.0	4	95	95	DP
1393		10/29/18	PUL18-0205		GP	7.0	142.0	3.7	135.9	4	96	95	DP
1394		10/29/18	PUL18-0205		GP	7.0	142.0	3.4	136.9	4	96	95	DP
1395		10/29/18	PUL18-0205		GP	7.0	142.0	3.6	140.5	4	99	95	DP
1396		10/29/18	PUL18-0205		GP	7.0	142.0	2.8	134.4	4	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference	Gauge Make / Model / SN / Calibrated			Field Technician	
1389	Fill - Subgrade: Golden Hills drive. At center line of road							At finish grade	Troxler / 3430 / 37625 / 3/21/2018			PAULSEN, ZACH	
1390	Fill - Subgrade: Golden Hills drive. East of center line of road							At finish grade	Troxler / 3430 / 37625 / 3/21/2018			PAULSEN, ZACH	
1391	Fill - Subgrade: Cayuse street. At center of roadway							At finish road grade	Troxler / 3430 / 37625 / 3/21/2018			PAULSEN, ZACH	
1392	Fill - Subgrade: Cayuse street. South of center of roadway							At finish road grade	Troxler / 3430 / 37625 / 3/21/2018			PAULSEN, ZACH	
1393	Fill - Subgrade: Cayuse street. North of center of roadway							At finish road grade	Troxler / 3430 / 37625 / 3/21/2018			PAULSEN, ZACH	
1394	Fill - Subgrade: Cayuse street. South of center of roadway							At finish road grade	Troxler / 3430 / 37625 / 3/21/2018			PAULSEN, ZACH	
1395	Fill - Subgrade: Cayuse street. North of center of roadway							At finish road grade	Troxler / 3430 / 37625 / 3/21/2018			PAULSEN, ZACH	
1396	Fill - Subgrade: Cayuse street. South of center of roadway							At finish road grade	Troxler / 3430 / 37625 / 3/21/2018			PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1397		10/29/18	PUL18-0205		GP	7.0	142.0	4.6	134.9	4	95	95	DP
1398		10/30/18	PUL18-0205		GP	7.0	142.0	2.7	134.2	4	95	95	DP
1399		10/30/18	PUL18-0205		GP	7.0	142.0	2.2	136.4	4	96	95	DP
1400		10/30/18	PUL18-0205		GP	7.0	142.0	2.7	134.3	4	95	95	DP
1401		10/30/18	PUL18-0205		GP	7.0	142.0	2.7	136.2	4	96	95	DP
1402		10/30/18	PUL18-0205		GP	7.0	142.0	3.1	134.4	4	95	95	DP
1403		10/30/18	PUL18-0205		GP	7.0	142.0	3.3	134.7	4	95	95	DP
1404		10/31/18	PUL17269		GP	8.0	140.0	5.2	145.2	4	104	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1397	Fill - Subgrade: Cayuse street. North of center of roadway							At finish road grade		Troxler / 3430 / 37625 / 3/21/2018		PAULSEN, ZACH	
1398	Fill - Subgrade: Wallowa st. At center line of roadway							At finish grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1399	Fill - Subgrade: Wallowa st. South of center line of roadway							At finish grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1400	Fill - Subgrade: Wallowa st. North of center line of roadway							At finish grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1401	Fill - Subgrade: Wallowa st. North of center line of roadway							At finish grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1402	Fill - Subgrade: Wallowa st. At center line of roadway							At finish grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1403	Fill - Subgrade: Wallowa st. North of center line of roadway							At finish grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1404	Fill - Subgrade: Golden Hills Drive. At center line of road							At finish road grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1405		10/31/18	PUL17269		GP	8.0	140.0	4.8	143.6	4	103	95	DP
1406		10/31/18	PUL17269		GP	8.0	140.0	6.1	133.4	4	95	95	DP
1407		10/31/18	PUL17269		GP	8.0	140.0	5.0	134.9	4	96	95	DP
1408		10/31/18	PUL17269		GP	8.0	140.0	4.8	133.6	4	95	95	DP
1409		10/31/18	PUL17269		GP	8.0	140.0	6.4	135.3	4	97	95	DP
1410		10/31/18	PUL17269		GP	8.0	140.0	6.2	132.7	4	95	95	DP
1411		10/31/18	PUL17269		GP	8.0	140.0	5.0	132.4	4	95	95	DP
1412		10/31/18	PUL17269		GP	8.0	140.0	6.0	132.6	4	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1405	Fill - Subgrade: Golden Hills Drive. West of center line of road							At finish road grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1406	Fill - Subgrade: Golden Hills Drive. East of center line of road							At finish road grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1407	Fill - Subgrade: Golden Hills Drive. West of center line of road							At finish road grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1408	Fill - Subgrade: Waha court. North of center line of road							At finish road grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1409	Fill - Subgrade: Waha court. North of center line of road							At finish road grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1410	Fill - Subgrade: Waha court. Southth of center line of road							At finish road grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1411	Fill - Subgrade: Cayuse street. South of center line							At finish road grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1412	Fill - Subgrade: Cayuse street. North of center line							At finish road grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1413		10/31/18	PUL17269		GP	8.0	140.0	5.4	132.3	4	95	95	DP
1414		10/31/18	PUL17269		GP	8.0	140.0	6.4	132.4	4	95	95	DP
1415		10/31/18	PUL17269		GP	8.0	140.0	4.9	132.9	4	95	95	DP
1416		10/31/18	PUL17269		GP	8.0	140.0	6.4	136.0	4	97	95	DP
1417		10/31/18	PUL17269		GP	8.0	140.0	7.6	137.4	4	98	95	DP
1418		10/31/18	PUL17269		GP	8.0	140.0	7.0	135.3	4	97	95	DP
1419		10/31/18	PUL17269		GP	8.0	140.0	6.8	137.1	4	98	95	DP
1420		10/31/18	PUL17269		GP	8.0	140.0	5.1	139.1	4	99	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1413	Fill - Subgrade: Cayuse street. South of center line							At finish road grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1414	Fill - Subgrade: Cayuse street. North of center line							At finish road grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1415	Fill - Subgrade: Cayuse street. South of center line							At finish road grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1416	Fill - Subgrade: Cayuse street. North of center line							At finish road grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1417	Fill - Subgrade: Cayuse street. South of center line							At finish road grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1418	Fill - Subgrade: Golden Hills drive. West of center line							At finish road grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1419	Fill - Subgrade: Golden Hills drive. East of center line							At finish road grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1420	Fill - Subgrade: Golden Hills drive. West of center line							At finish road grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1421		10/31/18	PUL17269		GP	8.0	140.0	6.7	132.9	4	95	95	DP
1422		10/31/18	PUL17269		GP	8.0	140.0	5.2	133.3	4	95	95	DP
1423		10/31/18	PUL17269		GP	8.0	140.0	7.0	134.6	4	96	95	DP
1424		11/2/18	PUL17269		GP	8.0	140.0	5.8	134.7	4	96	95	DP
1425		11/2/18	PUL17269		GP	8.0	140.0	6.3	133.2	4	95	95	DP
1426		11/2/18	PUL17269		GP	8.0	140.0	4.8	134.2	4	96	95	DP
1427		11/2/18	PUL17269		GP	8.0	140.0	5.6	132.6	4	95	95	DP
1428		11/2/18	PUL17269		GP	8.0	140.0	5.1	132.7	4	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1421	Fill - Subgrade: Golden Hills drive. East of center line							At finish road grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1422	Fill - Subgrade: Golden Hills drive. West of center line							At finish road grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1423	Fill - Subgrade: Golden Hills drive. East of center line							At finish road grade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1424	Fill - Subgrade: Wallowa street. South of center line of road							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1425	Fill - Subgrade: Wallowa street. North of center line of road							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1426	Fill - Subgrade: Wallowa street. South of center line of road							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1427	Fill - Subgrade: Wallowa street. North of center line of road							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1428	Fill - Subgrade: Wallowa street. South of center line of road							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1429		11/2/18	PUL17269		GP	8.0	140.0	4.6	132.4	4	95	95	DP
1430		11/2/18	PUL17269		GP	8.0	140.0	7.2	137.6	4	98	95	DP
1431		11/2/18	PUL17269		GP	8.0	140.0	6.9	137.0	4	98	95	DP
1432		11/2/18	PUL17269		GP	8.0	140.0	6.0	134.3	4	96	95	DP
1433		11/2/18	PUL17269		GP	8.0	140.0	6.3	135.6	4	97	95	DP
1434		11/2/18	PUL17269		GP	8.0	140.0	5.4	133.6	4	95	95	DP
1435		11/2/18	PUL17269		GP	8.0	140.0	6.0	133.9	4	96	95	DP
1436		11/2/18	PUL17269		GP	8.0	140.0	6.3	134.7	4	96	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1429	Fill - Subgrade: Wallowa street. North of center line of road							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1430	Fill - Subgrade: Umatilla street. South of center line of road							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1431	Fill - Subgrade: Umatilla street. South of center line of road							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1432	Fill - Subgrade: Umatilla street. South of center line of road							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1433	Fill - Subgrade: Umatilla street. North of center line of road							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1434	Fill - Subgrade: Umatilla street. East end of radius							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1435	Fill - Subgrade: Golden Hills Drive. West of center line of road							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1436	Fill - Subgrade: Golden Hills Drive. West of center line of road							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								

**Test Method:** ASTM D 6938

**Pullman**  
 6 O'Donnell Road  
 Pullman, WA 99163  
 Phone: 509.339.2000 | Fax: 509.339.2001

**Client:**

KIP Development  
 594 SE Bishop Boulevard, Suite 102  
 Pullman, WA 99163

**Project:**

PU17212B  
 Sundance South Subdivision  
 Sundance Court  
 Pullman, WA 99163

Test Results													
Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1437		11/10/18	PUL17269		GP	8.0	140.0	5.0	137.4	4	98	95	DP
1438		11/10/18	PUL17269		GP	8.0	140.0	2.6	132.4	4	95	95	DP
Test Information													
Test #	Test Location						Elevation	Reference		Gauge Make / Model / SN / Calibrated		Field Technician	
1437	Fill - Subgrade: Western approach of Golden Hills Drive							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
1438	Fill - Subgrade: Western approach of Golden Hills Drive							At finish road subgrade		Instrotek / X3500 / 3524 / 6/30/2018		PAULSEN, ZACH	
Remarks					Comments								
DP: Density Pass					Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.								



## Laboratory Report

Project:	Sundance South Development	Project No:	PU17212B
Client:	KIP Development	Date:	11/8/2018
		Tested By:	JBM
Sample Location:	Motley-Motley, Inc. (Motley) Plant	Sampled By:	Motley
	Pullman, WA	Date Sampled:	11/6/2018
Sample Description:	1/2-inch Hot Mix Asphalt (HMA)	Date Received:	11/6/2018
Sample Number:	PUL18-0225		

### AASHTO T329 Moisture Content of HMA by Oven Method

*By weight of total mix*

Moisture Content, %: 0.14

### AASHTO T308 Asphalt Binder Content of HMA by Ignition Method

*By weight of total mix, no NCAT correction*

Asphalt Content, %: 6.4

### AASHTO T209 Theoretical Maximum Specific Gravity and Density of HMA Paving Mixtures

Theoretical Maximum Specific Gravity: 2.548

Theoretical Maximum Density, pcf\*: 158.6

*\*pounds per cubic foot*

### AASHTO T30 Mechanical Analysis of Extracted Aggregate

**Specification Reference:** WSDOT Standard Specifications for Road, Bridge, and Municipal Construction  
2018 Section 9-03.8(6) - 1/2 inch (Spec)

Sieve Size	Metric, mm	PUL18-0225	Spec
		Passing, %	Passing, %
3/4"	19.1	100	99-100
1/2"	12.7	98	90-100
3/8"	9.51	90	90 Max
#4	4.76	65	-
#8	2.38	45	28-58
#16	1.19	32	-
#30	0.595	22	-
#50	0.297	15	-
#100	0.149	11	-
#200	0.074	<u>8.2</u>	2.0-7.0

\_\_\_ Underlined values designate results that fall outside of the specification's allowable deviations.



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A handwritten signature in blue ink, appearing to read "Justin Maffey".

Justin Maffey, E.I.T.

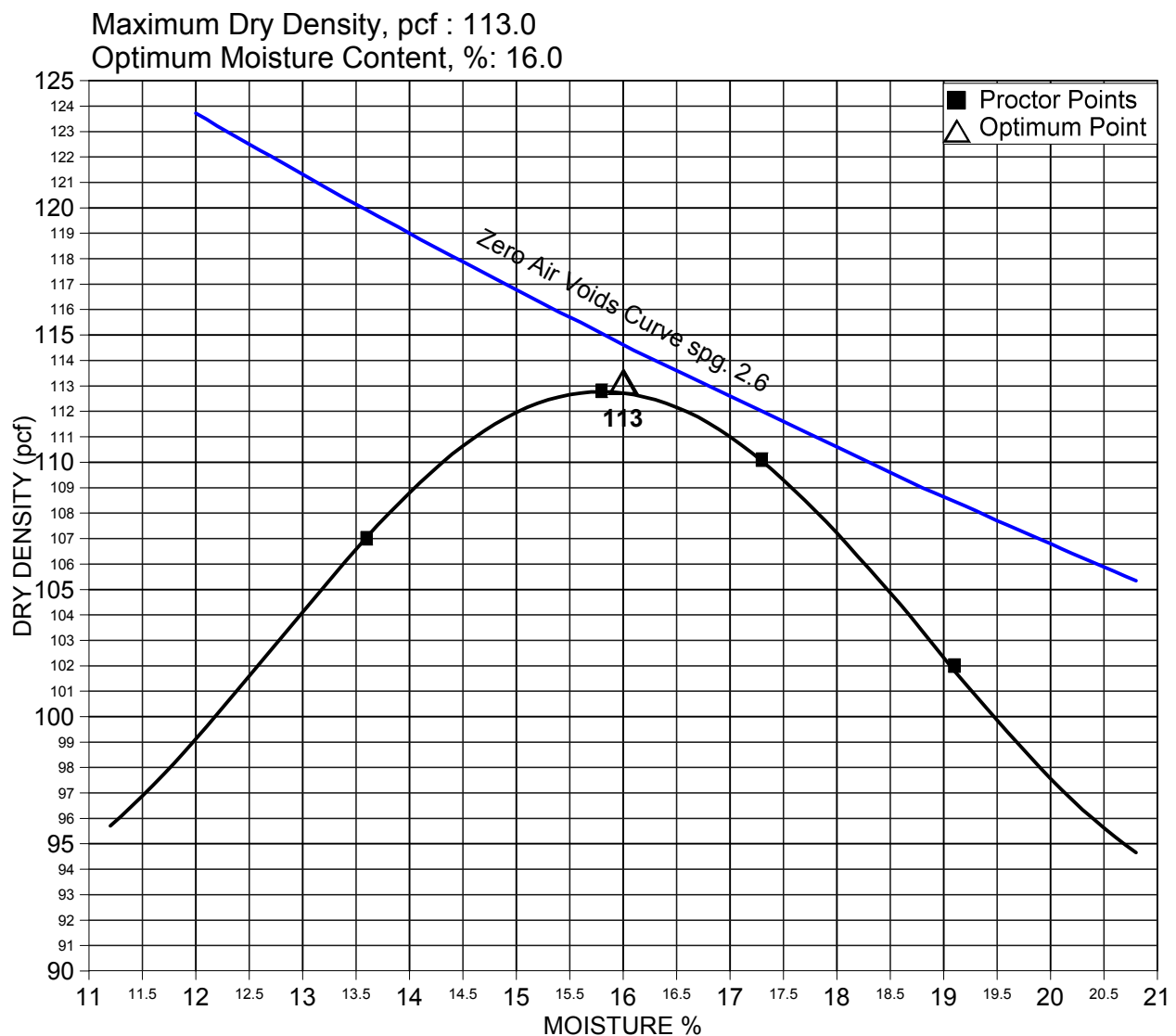
# MOISTURE-DENSITY RELATIONSHIP CURVE

## ASTM D 1557

### Method A

Project: Sundance South Subdivision  
Client: Sundance South, LLC  
File Name: PU17128A  
Lab Number: PUL17-0329  
Sample Location: On-site Native  
Sample Type: Silt (ML)  
Date Tested: 10/30/17 By: JBM  
Rammer Type: Manual

GRADING ANALYSIS		
SCREEN SIZE	% PASSING	AS TESTED
#4	100	100



Reviewed By: \_\_\_\_\_



**GeoProfessional  
Innovation.**

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## Laboratory Report

Project:	Sundance South Development	Project No:	PU17212B
Client:	KIP Development	Date:	11/13/2018
		Tested By:	JBM
Sample Location:	Motley-Motley, Inc. (Motley) Plant	Sampled By:	Motley
	Pullman, WA	Date Sampled:	11/12/2018
Sample Description:	1/2-inch Hot Mix Asphalt (HMA)	Date Received:	11/12/2018
Sample Number:	PUL18-0234		

### AASHTO T329 Moisture Content of HMA by Oven Method

*By weight of total mix*

Moisture Content, %: 0.06

### AASHTO T308 Asphalt Binder Content of HMA by Ignition Method

*By weight of total mix, no NCAT correction*

Asphalt Content, %: 6.7

### AASHTO T209 Theoretical Maximum Specific Gravity and Density of HMA Paving Mixtures

Theoretical Maximum Specific Gravity: 2.554

Theoretical Maximum Density, pcf\*: 159.0

*\*pounds per cubic foot*

### AASHTO T30 Mechanical Analysis of Extracted Aggregate

**Specification Reference:** WSDOT Standard Specifications for Road, Bridge, and Municipal Construction  
2018 Section 9-03.8(6) - 1/2 inch (Spec)

Sieve Size	Metric, mm	PUL18-0234	Spec
		Passing, %	Passing, %
3/4"	19.1	100	99-100
1/2"	12.7	98	90-100
3/8"	9.51	<u>91</u>	90 Max
#4	4.76	68	-
#8	2.38	45	28-58
#16	1.19	29	-
#30	0.595	19	-
#50	0.297	12	-
#100	0.149	9	-
#200	0.074	6.2	2.0-7.0

\_\_\_ Underlined values designate results that fall outside of the specification's allowable deviations.



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Justin Maffey, E.I.T.

## Laboratory Report

Project:	Sundance South Development	Project No:	PU17212B
Client:	KIP Development	Date:	11/13/2018
		Tested By:	JBM
Sample Location:	Motley-Motley, Inc. (Motley) Plant	Sampled By:	Motley
	Pullman, WA	Date Sampled:	11/9/2018
Sample Description:	1/2-inch Hot Mix Asphalt (HMA)	Date Received:	11/9/2018
Sample Number:	PUL18-0230		

### AASHTO T329 Moisture Content of HMA by Oven Method

*By weight of total mix*

Moisture Content, %: 0.04

### AASHTO T308 Asphalt Binder Content of HMA by Ignition Method

*By weight of total mix, no NCAT correction*

Asphalt Content, %: 6.6

### AASHTO T209 Theoretical Maximum Specific Gravity and Density of HMA Paving Mixtures

Theoretical Maximum Specific Gravity: 2.565

Theoretical Maximum Density, pcf\*: 159.7

*\*pounds per cubic foot*

### AASHTO T30 Mechanical Analysis of Extracted Aggregate

**Specification Reference:** WSDOT Standard Specifications for Road, Bridge, and Municipal Construction  
2018 Section 9-03.8(6) - 1/2 inch (Spec)

Sieve Size	Metric, mm	PUL18-0230	Spec
		Passing, %	Passing, %
3/4"	19.1	100	99-100
1/2"	12.7	98	90-100
3/8"	9.51	<u>93</u>	90 Max
#4	4.76	72	-
#8	2.38	50	28-58
#16	1.19	33	-
#30	0.595	22	-
#50	0.297	14	-
#100	0.149	10	-
#200	0.074	<u>7.2</u>	2.0-7.0

\_\_\_ Underlined values designate results that fall outside of the specification's allowable deviations.



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Justin Maffey, E.I.T.

## Laboratory Report

Project:	Sundance South Development	Project No:	PU17212B
Client:	KIP Development	Date:	11/8/2018
		Tested By:	JBM
Sample Location:	Motley-Motley, Inc. (Motley) Plant	Sampled By:	Motley
	Pullman, WA	Date Sampled:	11/7/2018
Sample Description:	1/2-inch Hot Mix Asphalt (HMA)	Date Received:	11/7/2018
Sample Number:	PUL18-0226		

### AASHTO T329 Moisture Content of HMA by Oven Method

*By weight of total mix*

Moisture Content, %: 0.03

### AASHTO T308 Asphalt Binder Content of HMA by Ignition Method

*By weight of total mix, no NCAT correction*

Asphalt Content, %: 6.5

### AASHTO T209 Theoretical Maximum Specific Gravity and Density of HMA Paving Mixtures

Theoretical Maximum Specific Gravity: 2.538

Theoretical Maximum Density, pcf\*: 158.0

*\*pounds per cubic foot*

### AASHTO T30 Mechanical Analysis of Extracted Aggregate

**Specification Reference:** WSDOT Standard Specifications for Road, Bridge, and Municipal Construction  
2018 Section 9-03.8(6) - 1/2 inch (Spec)

Sieve Size	Metric, mm	PUL18-0226	Spec
		Passing, %	Passing, %
3/4"	19.1	100	99-100
1/2"	12.7	97	90-100
3/8"	9.51	88	90 Max
#4	4.76	64	-
#8	2.38	44	28-58
#16	1.19	30	-
#30	0.595	21	-
#50	0.297	14	-
#100	0.149	10	-
#200	0.074	<u>7.2</u>	2.0-7.0

\_\_\_ Underlined values designate results that fall outside of the specification's allowable deviations.



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