Appendix M:

Earth Resources and Groundwater Documentation

Nelson Geotechnical Associates, Inc.
Geotechnical Engineering Evaluation
September 2006

GEOTECHNICAL ENGINEERING EVALUATION WOOD TRAILS WOODINVILLE, WASHINGTON PREPARED FOR THE CITY OF WOODINVILLE

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NELSON GEOTECHNICAL ASSOCIATES, INC.
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September 19, 2006

Steve Munson
The City of Woodinville
17301-133rd Avenue NE
Woodinville, Washington 98072

Geotechnical Engineering Evaluation
Wood Trails
Woodinville, Washington
NGA File No. 409205

Dear Mr. Munson:

This letter presents the results of our engineering geologic and geotechnical consultation of the Wood Trails project in Woodinville, Washington.

INTRODUCTION

We have been providing consultation and review services for the Woods Trails project as shown on the Vicinity Map in Figure 1. We have reviewed the previously prepared geotechnical reports for the project and the January 2006 Draft EIS issued by the City. For our use, we have been provided with reports titled "Geotechnical Engineering Study – Wood Trails Residential Development – Woodinville, Washington," prepared by Earth Consultants, Inc., dated June 9, 2005, as well as the report titled "Addendum Geotechnical Engineering Report – Wood Trails Residential Development – Woodinville, Washington," prepared by Earth Consultants, Inc., dated February 14, 2005. We were also provided with written review comments from the public meeting that occurred on February 16, 2006. We have also reviewed well logs submitted to the Department of Ecology.

Several exploration programs have been conducted on the site by Earth Consultants, Inc., and subsequently by Earth Solutions NW, LLC in July 2003, February, April, September, 2004, January 2005

and June 2006. These explorations have consisted of test pits, borings, and hand augers. The approximate locations of the explorations are shown on the Overall Site Map presented as Figure 2.

We were requested by the City of Woodinville to provide additional engineering geologic and geotechnical review of the DEIS document. This review is intended to provide an independent delineation of the DEIS regarding geologic, geotechnical, and groundwater conditions. Our review included the existing documentation and our own field visits, beginning in early 2005 until recently. We met several times with the DEIS contributors, including the proponent's consultants, and your representatives over that time period, including Mr. Chris Lawson of Tetra Tech. We visited the site many times over this period, including with and without the above personnel. As progress was made, we discussed our findings with the proponent's consultant and Mr. Lawson. This letter is the culmination of the review, field work, consultation, and discussions provided to date.

GEOLOGY

Geologic conditions interpreted within the Woods Trails site are similar to those discussed in the DEIS. It is our opinion that the site is underlain by Recessional Outwash (Qvr), Glacial Till (Qvt), Advance Outwash (Qva), and Transitional Beds (Qtu). In general, it appears that dense glacial till overlies a significant portion of the property, typically as a covering over the underlying glacial outwash and transitional beds. Local recessional outwash overlies the site within at least one portion of the area. Through our review and interpretation of the existing test pit and boring logs, together with our site observations of soil outcrops, we have developed a general Surficial Geologic Map of the site presented as Figure 3. We also created several general cross-sections throughout the property to show the relationship of the soil/geology encountered in the explorations and our interpretations. Cross-Sections A-A'' through E-E'' are presented as Figures 4 through 8.

The cross sections shown on Figures 4-8 should be viewed as our interpretations of anticipated subsurface geologic and groundwater conditions based on our review of available documentation and our field visits. The cross sections are based on the Surface Geologic Map shown on Figure 3. In general, these cross sections show how the relationship of the glacial till, advance outwash, and Transitional Bed deposits correlate within this site. Assumed geologic unit contacts are inferred from available data, and may be different than actually shown. However, the intent of the cross sections is to show the geologic

relationships, and how our interpretations of geologic, slope stability, and groundwater conditions indicate presumed existing conditions.

In general, it appears the Glacial Till blankets the upslope easterly and downslope northwesterly portions of the site, and can overlie both or either the advance outwash or Transitional Bed deposits. The Advance Outwash generally underlies the till, but can be exposed near surface or be completely absent. The Transitional Bed deposits are thought to underlie the entire site at depth, but were only encountered and/or exposed within the planned area of the detention pond.

The cross sections also indicate the rationale for groundwater flow as discussed in the **Groundwater** subsection of this letter. With respect to the till, the Advance Outwash has a higher permeability. With the higher permeability Advance Outwash either exposed or underlying the till, local recharge could provide water for flow. This is evidenced by the seepage areas shown, and the problematic structural "high" indicated within the detention pond area created by the Transitional bed deposits. This is further discussed in the **Groundwater** subsection.

Recessional Outwash: The area within Test Pit 201, as shown on Figure 2, indicates the presence of granular Recessional Outwash overlying the glacial and transitional deposits. This area does not appear to be very extensive; however, other local Recessional Outwash deposits could occur in similar fashion. These deposits are derived from meltwaters of the Vashon Age glaciation, and are known to exist within the area over dense glacial and Transitional Bed deposits.

Glacial Till: As shown on Figure 3, Glacial Till comprises most of the near surface deposits within the easterly and northerly portion of the site. The till is generally dense to very dense, and is composed of a mixture of silt, sand, and gravel derived from deposition by the Vashon Age glaciers. The till deposits typically "blanket" upland areas in the Puget Sound region, and are found to exhibit this condition at the site area. Locally, Advance Outwash is found near-surface and the overlying till is absent.

Advance Outwash: These deposits are derived from meltwaters of the advancing Vashon Age glaciers, which were subsequently compacted by the weight of the glacial ice, like the Glacial Till. These deposits are more granular than the till, due to the effects of "flushing" of fines from the fluvial-type deposition.

Typically, these deposits exhibit bedding or layering, with local interbeds of sand, gravel, and silt. On this site, the Advance Outwash appears to be somewhat siltier than other more "clean" deposits of similar depositional environments. As shown on Figure 3, the Advance Outwash appears to be exposed as a "window" within the area of Glacial Till, within the northern one-half of the site. This condition can be explained as a probable remnant channel of the Advance Outwash within this particular location, in conjunction with a structural "high" as discussed below. The Advance Outwash occurs on the steeper slopes, downslope of the till within the southern one-half of the site.

Transitional Beds: It appears the site is underlain by the fine grained Transitional Bed deposits, described as interglacial, lacustrian deposits deposited prior to the latest glaciation of Vashon Age. These deposits are typically very stiff to hard, due to compaction by glacial ice. Typically, these deposits are fine-grained, consisting of silt, with varying amounts of clay and fine sand, and are generally well to massive bedded. On this site, the Transitional Bed deposits were generally encountered within the area of the planned detention pond. Both borings and deep test pits performed within this area encountered these deposits. Of particular interest is the condition encountered where the Glacial Till directly overlies the Transitional Bed deposits, with no evidence of the Advance Outwash between. This is an uncommon occurrence; however, this can probably be explained as a structural high within the area of the Transitional Bed exposures generally located within the northwestern portion of the site.

GROUNDWATER

We reviewed the existing information related to groundwater within the site, and reviewed additional information and performed site observations to provide our opinion of the general groundwater conditions within this site. Groundwater was encountered by Earth Consultants, Inc. and Earth Solutions NW, LLC. in a select number of explorations on the site. Groundwater conditions were also determined through field locating of existing seeps and springs. We have shown the locations of the seepage areas that were mapped by Earth Consultants, Inc. and Earth Solutions NW, LLC on the Groundwater Seepage Location Map in Figure 9. This map shows the location of the mapped seepage areas and their relationship to each other.

The general seepage conditions were first observed during the spring of 2005, prior to seasonal vegetation growth. We noted seepage areas, and later performed field visits to map significant seepage locations.

During the 2005 springtime, we noted a somewhat greater volume of surface water flow within the drainage swale located off site toward the north than was observed during the course of the following months leading up to present. We also noted somewhat greater flow from the seepage zones observed and monitored over the last few months. This aided in our interpretation of a relatively limited near-surface groundwater recharge area within this site.

Surface water flow may increase within the main drainage swales located to the north during seasonal and severe weather events, but the conditions controlling the local recharge and the central, westerly draining swales appear to minimize the effects of surface flow. We did not observe any evidence of significant increases in the noted seepage areas, although lesser amounts of surface flow are indicated. During our field visits later in the summer, we did not observe additional areas of seepage. The seepage areas that were mapped were still visible in September after the summer months. We would consider these particular areas as chronic seepage zones, related to a near-surface groundwater condition, controlled by the presence of the Advance Outwash deposits within the area, and the limited local recharge effects.

It appears that near-surface water, derived from precipitation and local near-surface recharge, are collected within the Advance Outwash deposits and above the Transitional Bed deposits, and flow downslope to the locations shown as seepage areas. Within the northerly seepage zone area, it appears the groundwater flows within a remnant Advance Outwash channel and toward the north. The Transitional Beds act as a local underlying aquiclude, and the Advance Outwash is the local aquifer. It should be noted that the structural high discussed for the Transitional Bed deposits in the area of the proposed detention pond separates the distinct seepage areas shown. No evidence of the Advance Outwash or groundwater was found within this area.

Seepage from the northern seepage area flows downslope and into the main surface drainage area located off site within Tract A. This water flows within the drainage and is directed into a culvert that connects to the controlled drainage system located off site toward the northwest. Seepage within the central-western portion of the site exists with erosional swales that trend toward the west. No evidence of stream flow was observed from these areas, and the amount of groundwater appears to be significantly less than the seepage area located to the north. It appears that the amount of flow from these seepage areas is small, and is controlled subsurfacely off site toward the west.

We have also reviewed and compiled a group of recorded water wells from the Department of Ecology in the area in the general vicinity of the project area and presented their locations as Figures 10 and 11. The cross-sections F-F' and G-G' (Figures 12 and 13) show the groundwater encountered with respect to USGS map topography. The referenced well logs are presented as Figures W-1 through W-24.

It appears that two different groundwater levels exist within the project area. Based on the recorded well log data, a deep (>100 feet) aquifer exists that has and is being used for domestic purposes. Within the project location, this deep aquifer does not surface, nor is it connected with the surface recharge. This is generally evidenced by the presence of the very low permeability Transitional Bed deposits that underlie the glacial deposits, and is expected to underlie the entire site. The Transitional Bed deposits act as an aquiclude to separate the upper groundwater conditions from the deeper groundwater conditions. Based on the deep well data, the general direction of the deep aquifer flow is toward the northwest, and well below the influence of the project area.

The upper groundwater condition appears to be related to local recharge, due to the low permeability glacial cap, increased permeability of the local advance outwash exposed near surface, and the apparent structural "high" created by the local Transitional Bed deposits. We also noted somewhat greater flow from the seepage zones observed and monitored over the last few months as discussed above. This aided in our interpretation of a relatively limited near-surface groundwater recharge area within this site.

Elevations for the upper elevation groundwater, which shows up in the seepage areas shown on Figure 9, appears to vary from roughly elevation 290 to 360. Since the structural high is thought to separate these areas, the source of their waters may be very local; either on site or just off site from the east. The Transitional Bed deposits are thought to be the controlling factor in the actual elevations of the seepage zones.

SLOPE STABILITY

The slope stability conditions discussed in the DEIS appear to be appropriate for the general site conditions reviewed and observed on site. However, during our site reconnaissance, we noted two distinct areas within the site that have displayed evidence of historic landsliding and/or should be

considered marginally stable to unstable. These areas are just north of the Wood Trails site, below the top of slope, and are shown on Figure 3.

The westerly most of these areas appears to be a historic slump/earth flow which is a mass movement which consisted of a single or multiple rotational slump at the head and a bulbous toe where disturbed material had disintegrated and partially flowed out of the failed area. From the approximate age of the vegetation noted within the area, it appears that this feature is at least 15 to 20 years old. The easterly most of these areas is an apparently ongoing surface slump, with local tension cracking, downsets, and slump blocks. Vegetation within this area indicates soil creep and generally wet surface and subsurface conditions. This particular feature appears related to the upper seepage zone shown on Figure 9. Common methods to mitigate the effects and future concerns of these particular features typically include providing adequate building setbacks from the area, and to control drainage.

An exposed soil bank area was discussed at the public meeting. We performed a site reconnaissance to determine the site conditions. It appears that this particular soil bank is located within the drainage swale within the Tract A area, just north of the site. We observed a granular soil exposure near the toe of the north-facing slope at the drainage swale. It appears this material consists of the Advance Outwash, which is being eroded at the toe by seasonal drainage within the swale. The sloughing noted consists of loose weathered soil and topsoil overlying the Advance Outwash. Erosion of the core outwash material appears to be minimal, with little or no effect to the upslope area at this time. This condition also seems to have been exacerbated by historic road fill placed across the swale just downslope of this area that has since been breached. Damming of the water within the swale probably occurred, before breaching of the road fill occurred. Saturation by water at that time may have contributed to the surface sliding in this area, but is not expected to be of issue in the future.

HISTORIC GROUND DISTURBANCE

Previous grading and timber harvest activities have occurred on the site in the past. We have reviewed aerial photos from 1936, 1947, 1955, 1967, 1976, 1980, 1985, 2001, and 2004. The approximate areas of disturbance from grading are shown on Figure 2. Based on the photos it appears that approximately ¼ of the site was logged prior to 1936. During our site reconnaissance, we observed evidence of past logging including several old roads including logging roads, access roads, and paths. These areas exhibit both

cuts and fills. Where roads crossed existing drainage swales, it appears that culverts may or may not have been placed.

A discussion of "broken pipes" within the northern drainage swale near the western side was presented at the public meeting. We observed this area, and it appears that the broken pipes were a past attempt to provide concrete culvert pipes beneath an old roadway that crossed the swale in this area. Apparently, the culvert pipes were not adequate, and the roadway was breached leaving the individual concrete pipes lying within the drainage swale.

In general, the effects of past on-site disturbance have had some impact to the site. Overall, the effects appear to have been relatively minor except as discussed below. Access roadways and old logging roads were constructed across the slope and across the northerly drainage swales. The on-site disturbances are evidenced by road fills that have been washed away, concrete culverts that remain of a fill crossing, and local cut/fill areas that show signs of backwasting. Past fill and cut for these roadways may have contributed to the instability noted within the northeasterly portion of the property, and off site within Tract A. Cuts created within the residential improvement shown in the aerial photo from 1985 appear to have intersected a seepage zone of the advance outwash above the transitional bed deposits. Methods to mitigate past grading within this site generally include backsloping and erosion control within cut slopes, and removal and/or stabilization of fill slopes through engineering evaluation, design, and common stabilization techniques.

USE OF THIS LETTER

NGA has prepared this letter for the City of Woodinville, and their agents, for use in the planning and design of the development planned on this site only. There are possible variations in subsurface conditions between the explorations and also with time. Our letter, conclusions, and interpretations should not be construed as a warranty of subsurface conditions. A contingency for unanticipated conditions should be included in the budget and schedule.

Within the limitations of scope, schedule, and budget, our services have been performed in accordance with generally accepted geotechnical engineering practices in effect in this area at the time this report was prepared. No other warranty, expressed or implied, is made. Our observations, findings, and opinions are a means to identify and reduce the inherent risks to the owner.

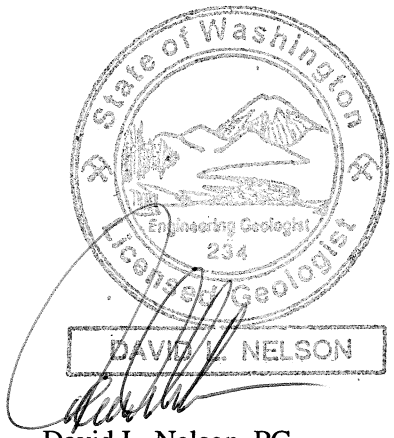
o-O-o

It has been a pleasure to provide service to you on this project. If you have any questions or require further information, please call.

Sincerely,

NELSON GEOTECHNICAL ASSOCIATES, INC.

Bala Dodoye-Alali
Project Geologist



David L. Nelson, PG
Professional Engineering Geologist/Hydrogeologist

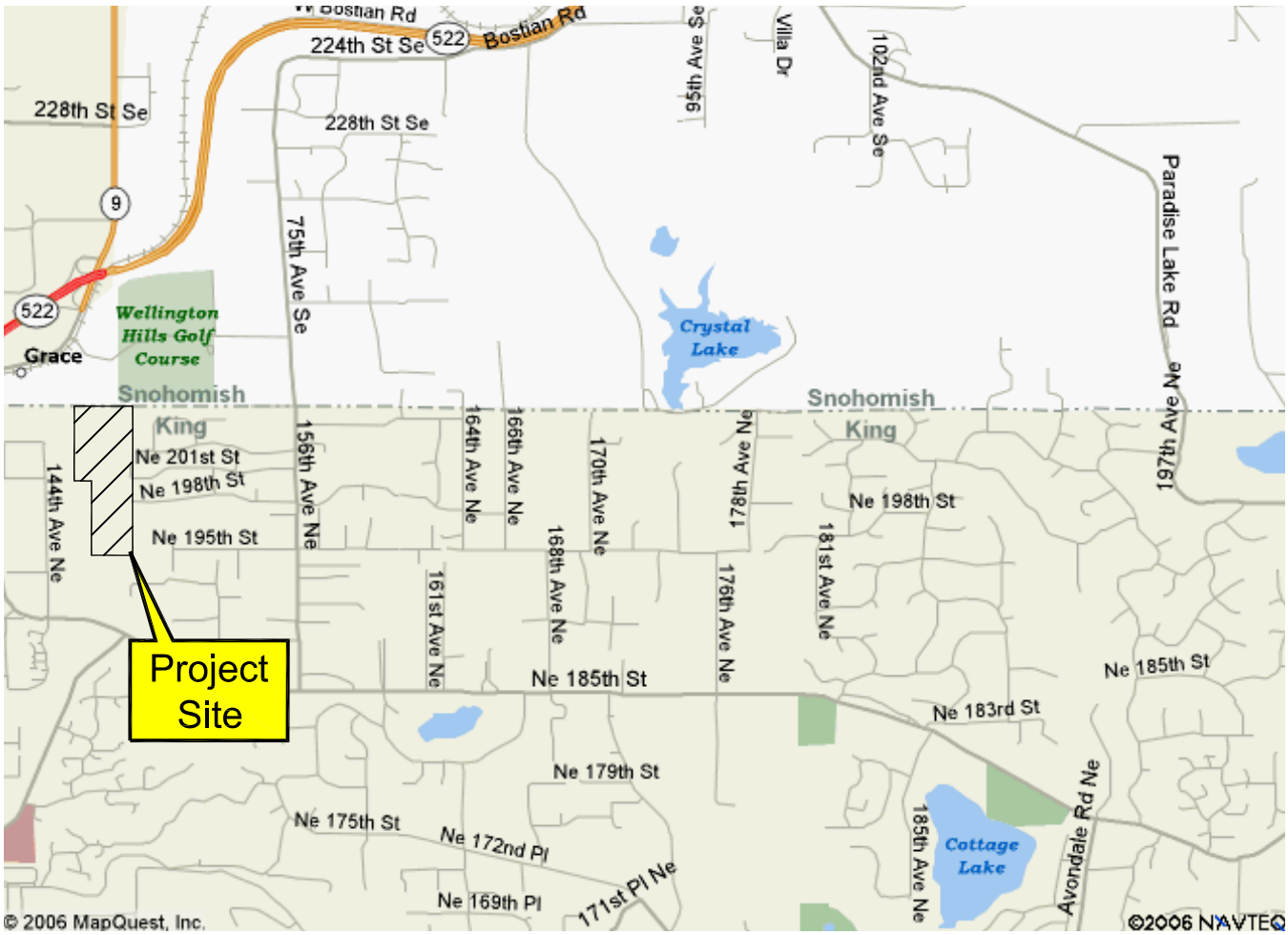
BD:DLN:lam

One Copy Submitted
Thirteen Figures Attached
Twenty-four Well Logs Attached

cc: Chris Lawson – Tetra Tech (One Copy, One CD)
Ray Coglas, PE – Earth Solutions NW, LLC (One Copy)

VICINITY MAP

Not to Scale



Woodinville, WA

Project Number 409205	Wood Trails Vicinity Map	NELSON GEOTECHNICAL ASSOCIATES, INC. NGA GEOTECHNICAL ENGINEERS & GEOLOGISTS 17311-135th Ave. NE, A-500 Woodinville, WA 98072 (425) 486-1669 / Fax 481-2510 Snohomish County (425) 337-1669 Wenatchee/Chelan (509) 665-7696 www.nelsongeotech.com	No.	Date	Revision	By	CK
Figure 1			1	9/1/06	Original	ACO	BD

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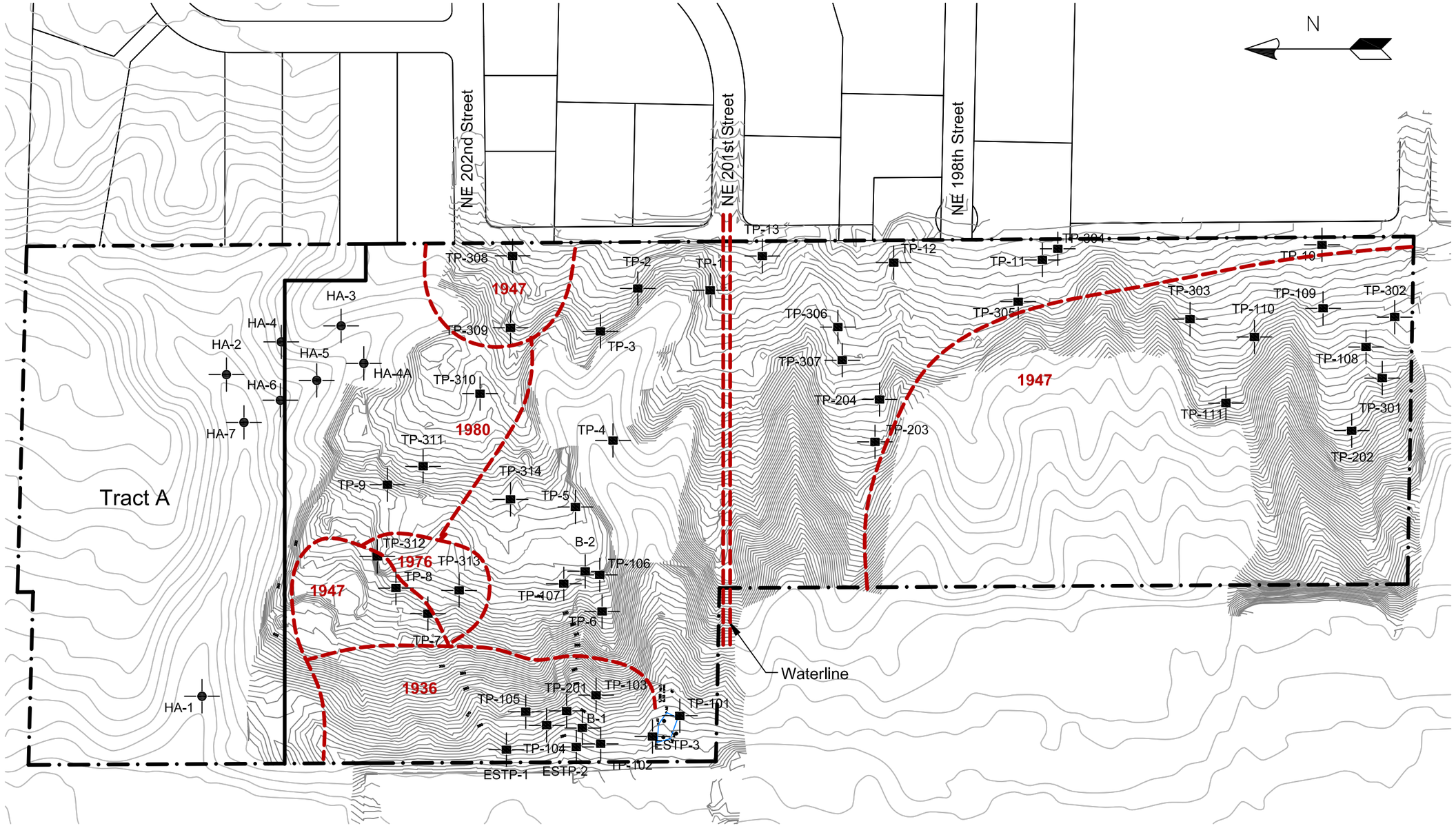
NGA Drafting 2006\409205 City of Woodinville\SP-2.dwg



LEGEND

- Project boundary
- TP-1 — Number and approximate location of ECI Test Pit, July 2003
- TP-101 — Number and approximate location of ECI Test Pit, February 2004
- TP-201 — Number and approximate location of ECI Test Pit, April 2004
- TP-301 — Number and approximate location of ECI Test Pit, September 2004
- HA-1 — Number and approximate location of ESNW Hand Auger, June 2006
- ESTP-1 — Number and approximate location of ESNW Test Pit, June 2005
- B-1 — Number and approximate location of ECI Boring, January 2005
- 1955 — Date and approximate location of disturbed areas based on aerial photos

*The maps and cross-sections produced for this study are interpretations based on our review of the provided data. Our conclusions and interpretations should not be construed as a warranty of subsurface conditions.

0 200 400

Scale: 1 inch = 200 feet

Reference: Site Plan based on a topographic survey dated April 21, 2006, titled "Wood Trails," prepared by Triad Associates.

No.	Date	Revision	By	CK
1	8/16/06	Original	ACO	BD

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Wood Trails
Overall Site Map

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Figure 2

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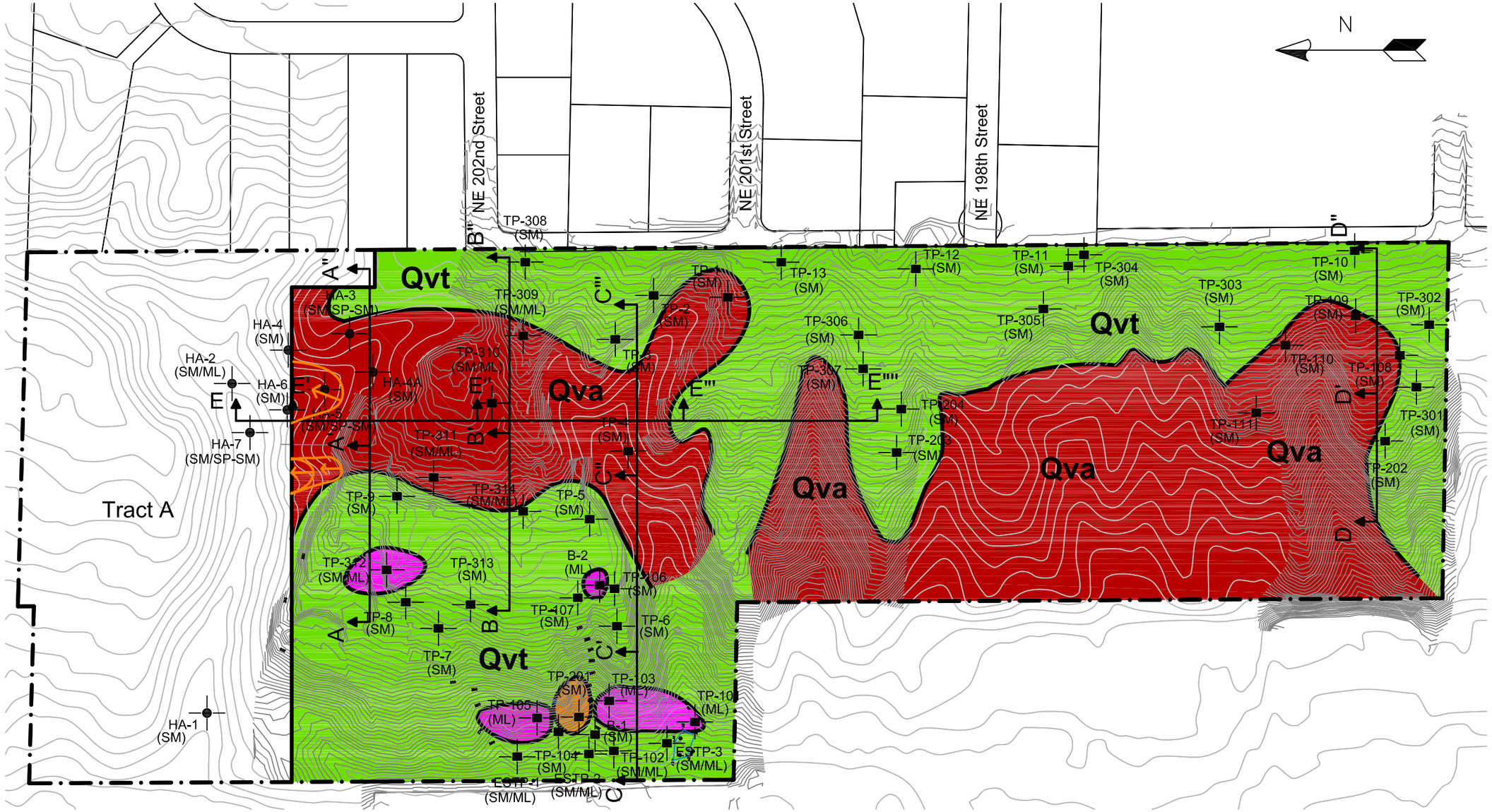

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- B-1 — Number and approximate location of ECI Boring, January 2005
- A A' — Approximate location of cross-section
- Approximate location of landslide scarp
- Approximate geologic contact
- Approximate area of Sand - Recessional Outwash (Qvr)
- Approximate area of Silty Sand - Till (Qvt)
- Approximate area of Silty Sand - Advance Outwash - Local Till Cover (Qva)
- Approximate area of Silt - Transitional (Qtu)

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1	8/16/06	Original	ACO	BD

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Wood Trails
Geologic Site Map

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Figure 3

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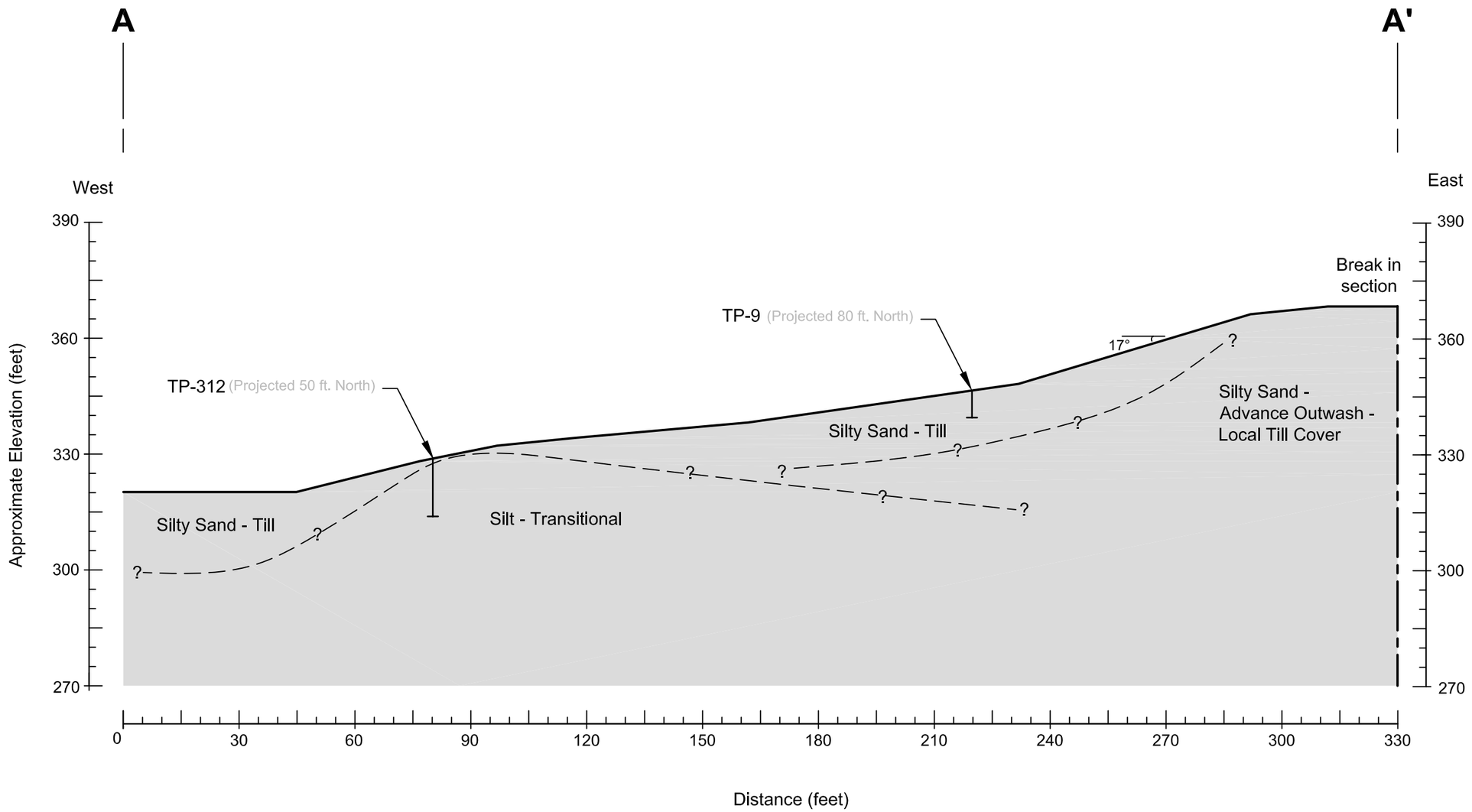

Exploration

Test Pit Designation → **TP-1**

Groundwater Level During Exploration →

Geologic Contact (approximate) → ?—?

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NOTES:
1) Stratigraphic conditions are interpolated between the explorations. Actual conditions may vary.
2) Elevations are approximate.

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Wood Trails
Cross-Section A-A'

Project Number 409205 | Figure 4 | Page 1 of 2

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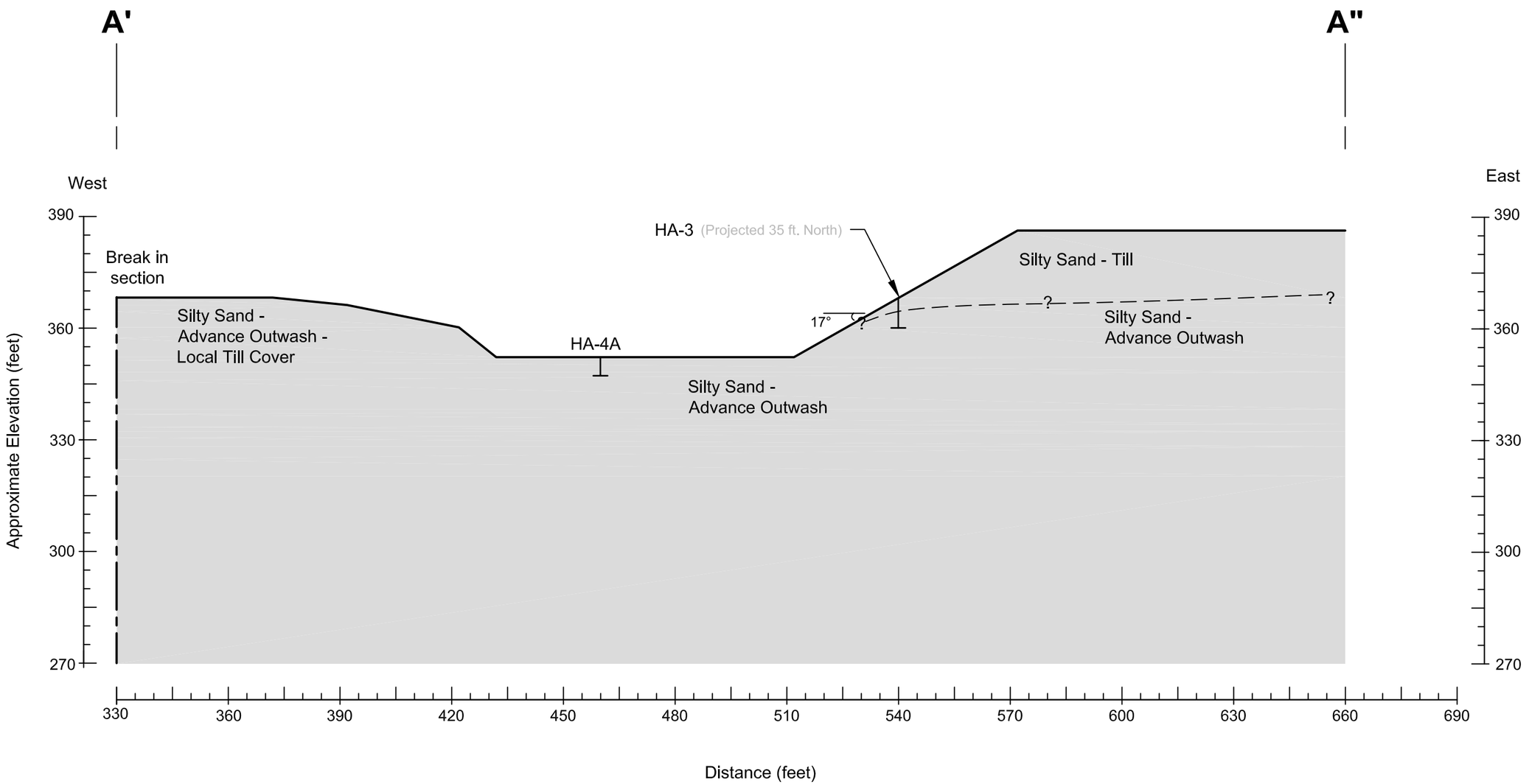

Exploration

Test Pit Designation → TP-1

Groundwater Level During Exploration →

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Wood Trails
Cross-Section A'-A"

Project Number 409205 | Figure 4 | Page 2 of 2

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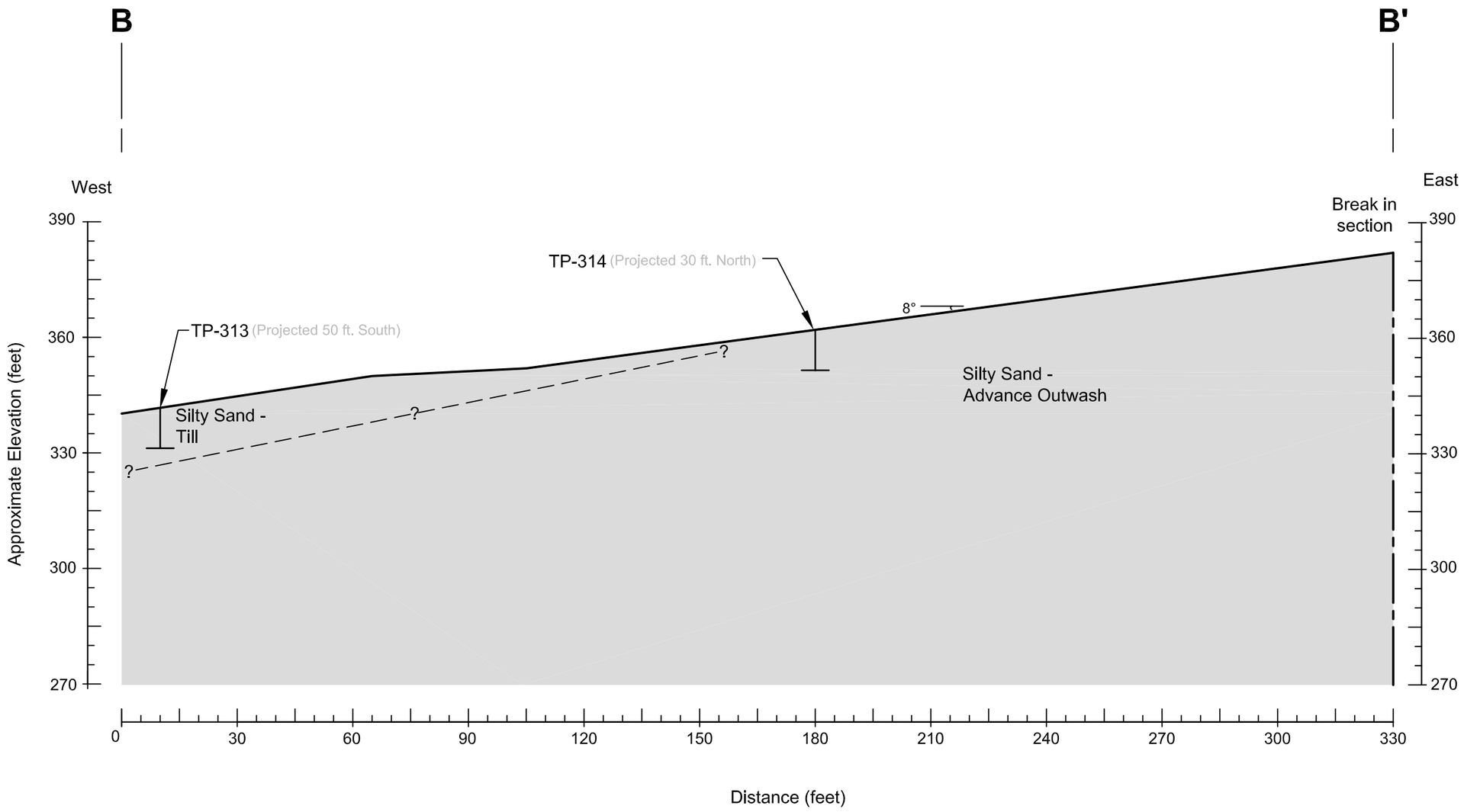

Exploration

Test Pit Designation → TP-1

Groundwater Level During Exploration →

Geologic Contact (approximate) → ? — — ?

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Wood Trails
Cross-Section B-B'

Project Number 409205 | Figure 5 | Page 1 of 2

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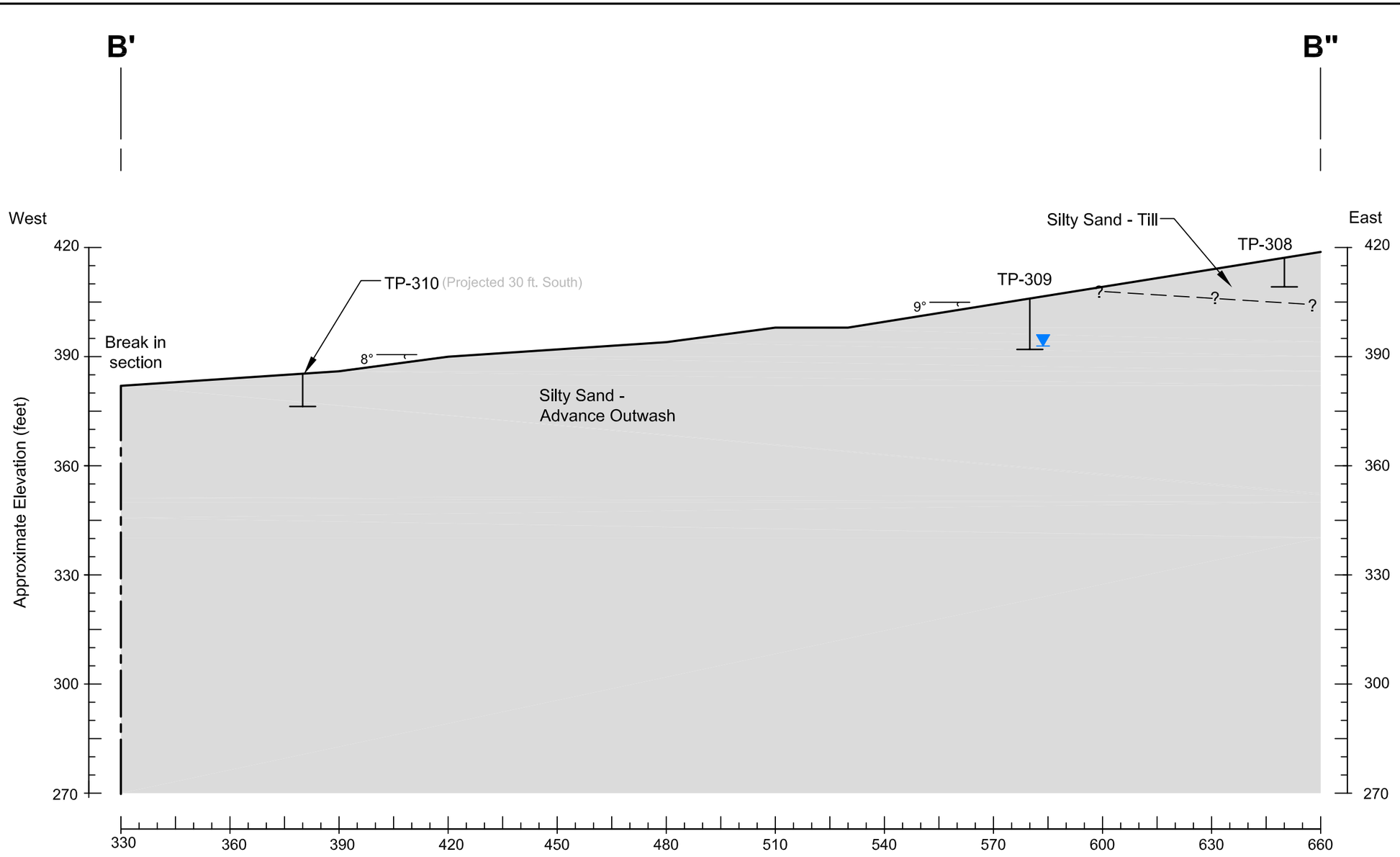

Exploration

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Groundwater Level During Exploration →

Geologic Contact (approximate) → ?—?

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Wood Trails
Cross-Section B'-B"

Project Number 409205 | Figure 5 | Page 2 of 2

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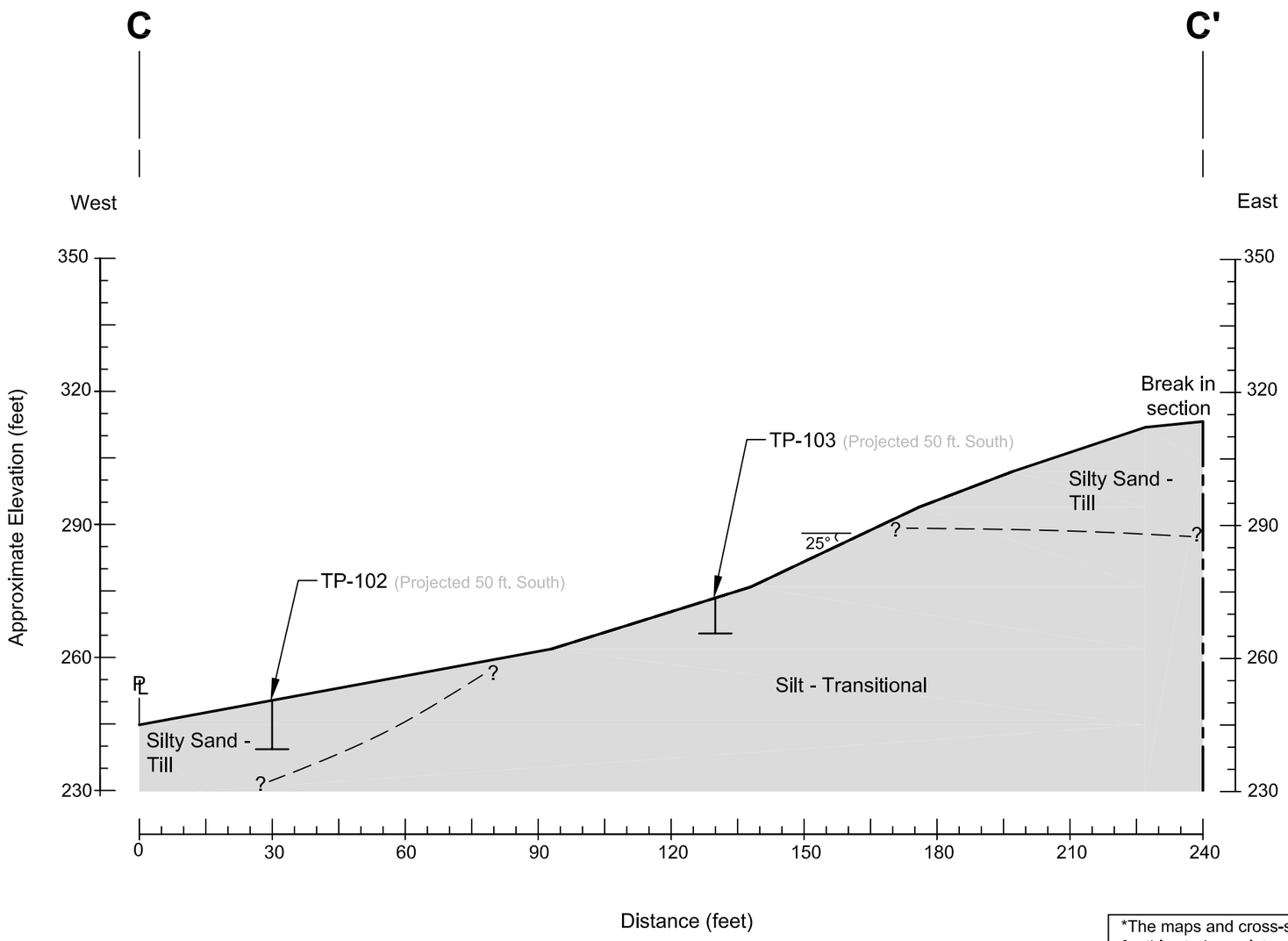

Exploration

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Groundwater Level During Exploration →

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Reference: Cross-section based on a topographic survey dated April 21, 2006, titled "Wood Trails," prepared by Triad Associates.

No.	Date	Revision	By	CK
1	8/31/06	Original	ACO	BD

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Snohomish County (425) 337-1669
Wenatchee/Chelan (509) 784-2756
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Wood Trails
Cross-Section C-C'

Project Number 409205 | Figure 6 | Page 1 of 3

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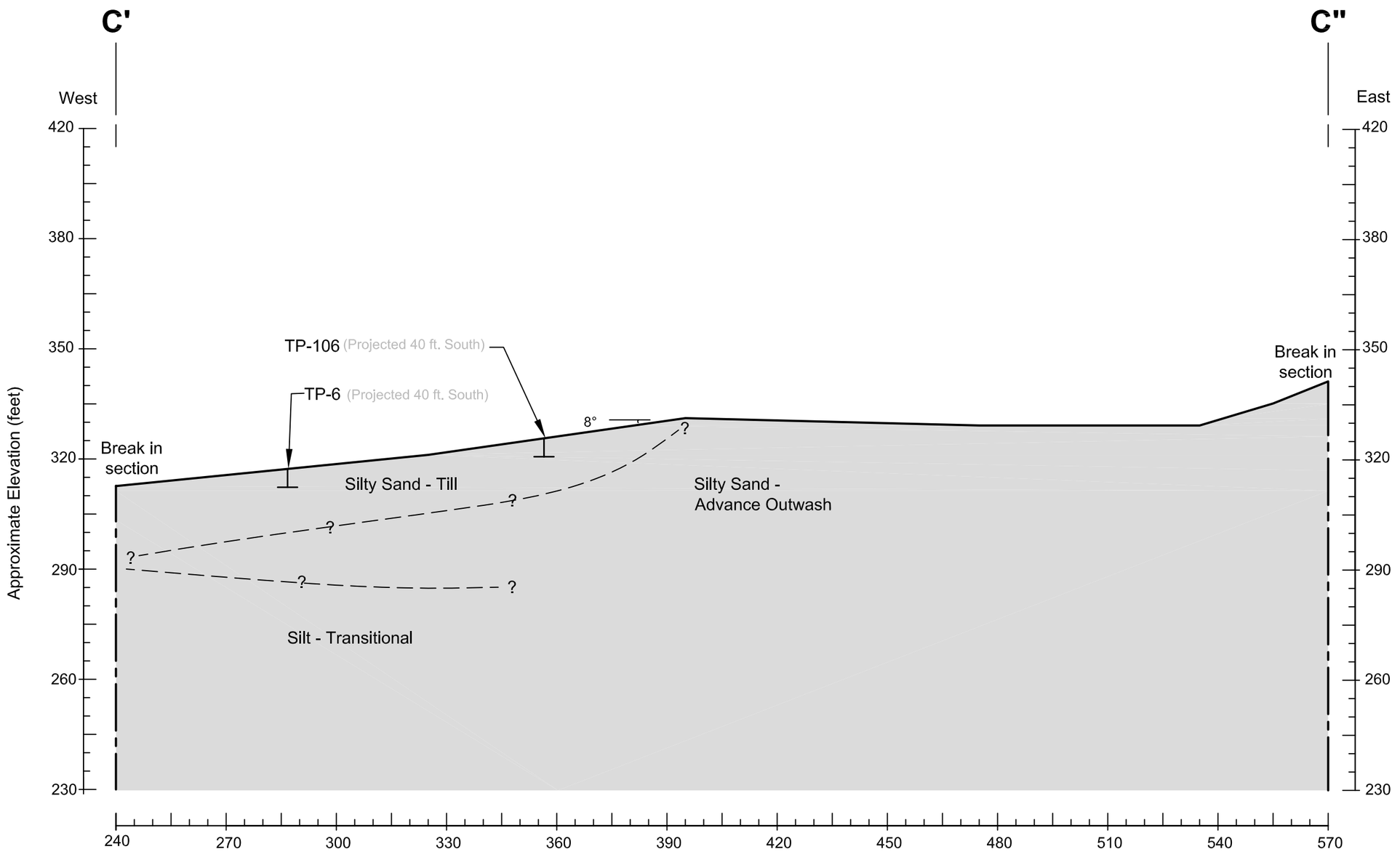

Exploration

Test Pit Designation → TP-1

Groundwater Level During Exploration →

Geologic Contact (approximate) → ?—?

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Wood Trails
Cross-Section C'-C"

Project Number 409205 | Figure 6 | Page 2 of 3

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Distance (feet)

NGA Drafting 2005\409205 City of Woodinville\CS (1-30)

C"

C'''

West

East

TP-2 (Projected 30 ft. North)

18°

TP-4 (Projected 20 ft. South)

TP-3

F-F"

Silty Sand - Till

Break in section

21°

Silty Sand - Advance Outwash

?

?

?

Approximate Elevation (feet)

420

380

350

320

290

260

230

570 600 630 660 690 720 750 780 810 840 870 900

Distance (feet)

Exploration

Test Pit Designation → TP-1

Groundwater Level During Exploration →

Geologic Contact (approximate) → ?—?

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Wood Trails
Cross-Section C"-C'''

Project Number 409205

Figure 6

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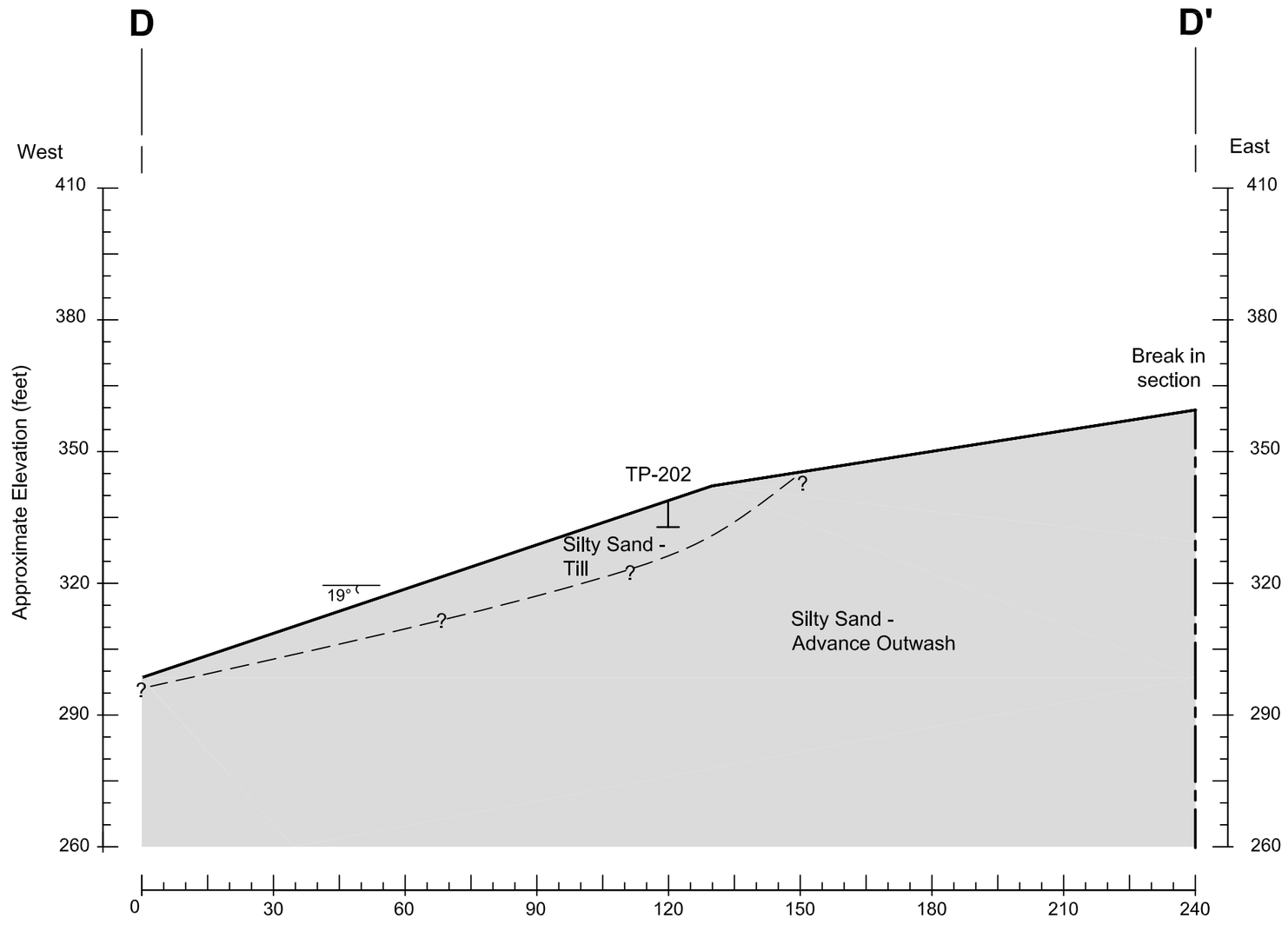

Exploration

Test Pit Designation → TP-1

Groundwater Level During Exploration →

Geologic Contact (approximate) → ?---?

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Wood Trails
Cross-Section D-D'

Project Number 409205 | Figure 7 | Page 1 of 2

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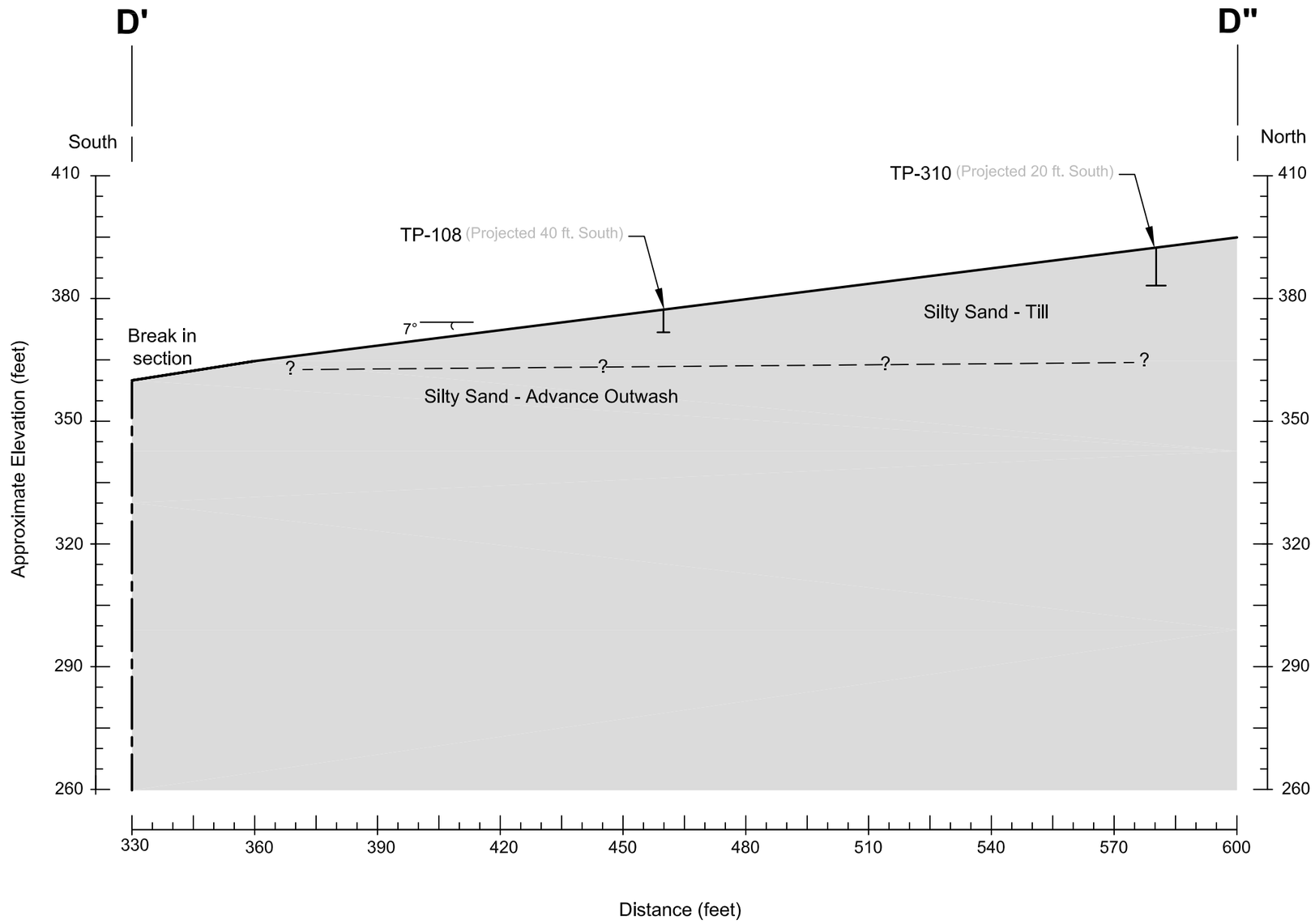

Exploration

Test Pit Designation → TP-1

Groundwater Level During Exploration →

Geologic Contact (approximate) → ?—?

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Wood Trails
Cross-Section D'-D"

Project Number 409205 | Figure 7 | Page 2 of 2

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Project Number 409205

Figure 8

Page 1 of 4

Wood Trails
Cross-Section E-E'

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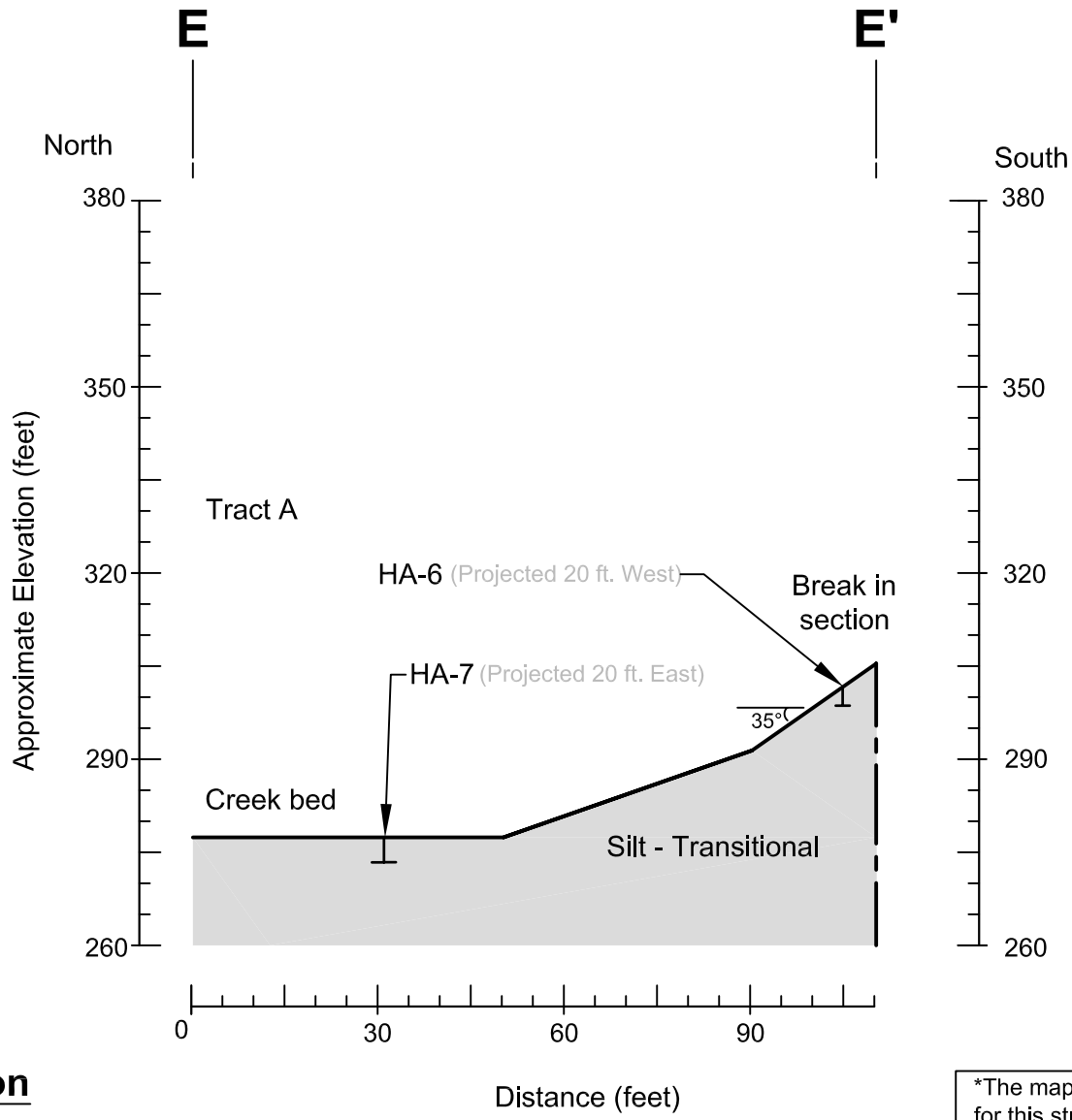
1	9/18/06	Original	ACO	BD



Exploration

Test Pit Designation → TP-1

Groundwater Level During Exploration →

Geologic Contact (approximate) → ?—?

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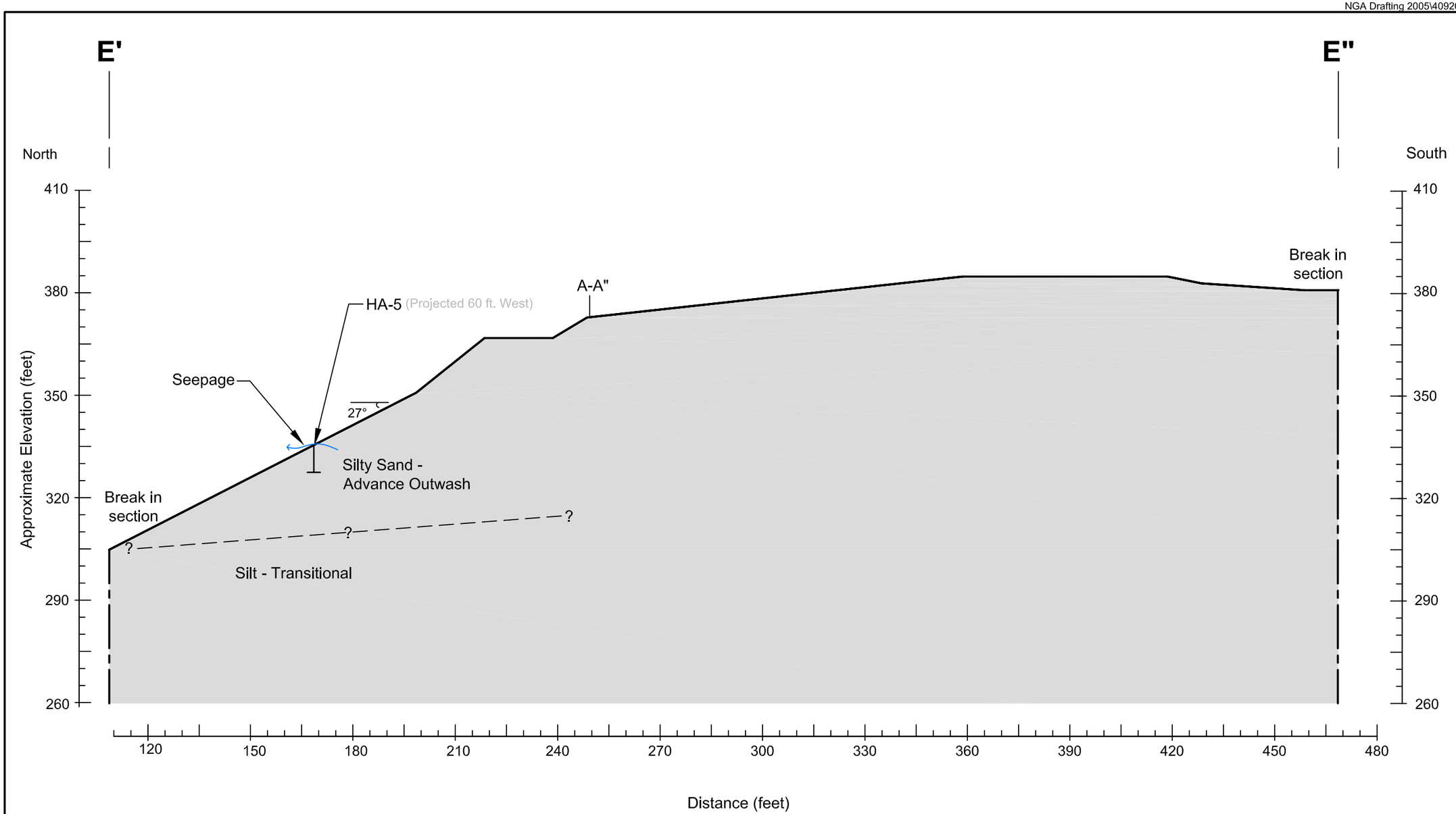

Exploration

Test Pit Designation → TP-1

Groundwater Level During Exploration →

Geologic Contact (approximate) → ?—?

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Wood Trails
Cross-Section E'-E"

Project Number 409205 | Figure 8 | Page 2 of 4

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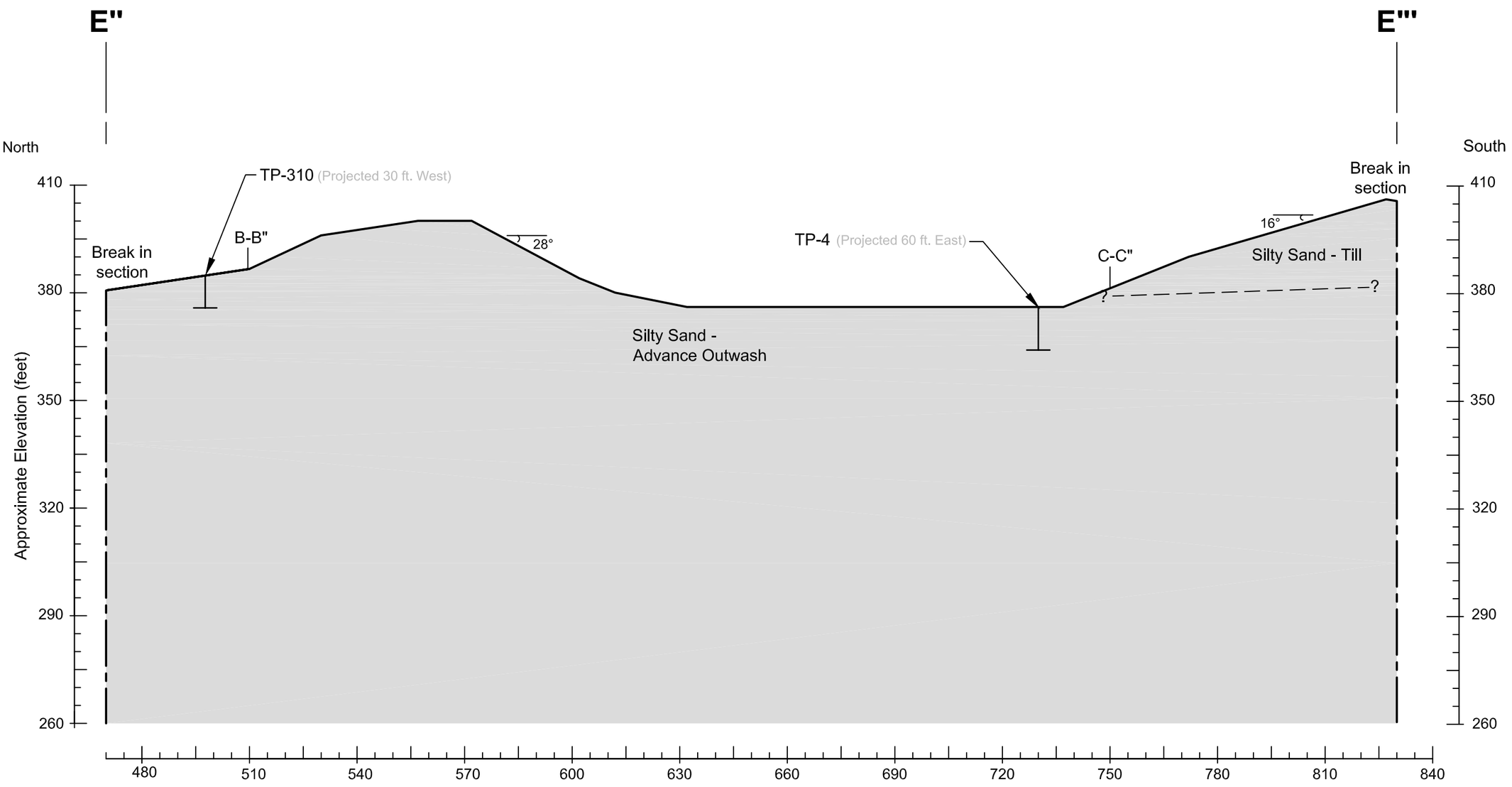

Exploration

Test Pit Designation → TP-1

Groundwater Level During Exploration →

Geologic Contact (approximate) → ?—?

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Wood Trails
Cross-Section E"-E'"

Project Number 409205

Figure 8

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E'''

E''''

North

South

Break in section

Approximate Elevation (feet)

410

380

350

320

290

260

Silty Sand - Till

Silty Sand - Till

Silty Sand - Advance Outwash

22°

24°

?

840 870 900 930 960 990 1,020 1,050 1,080 1,110 1,140 1,170 1,200

Distance (feet)

Exploration

Test Pit Designation → TP-1

Groundwater Level During Exploration →

Geologic Contact (approximate) → ?—?

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Wood Trails
Cross-Section E'''-E''''

Project Number 409205

Figure 8

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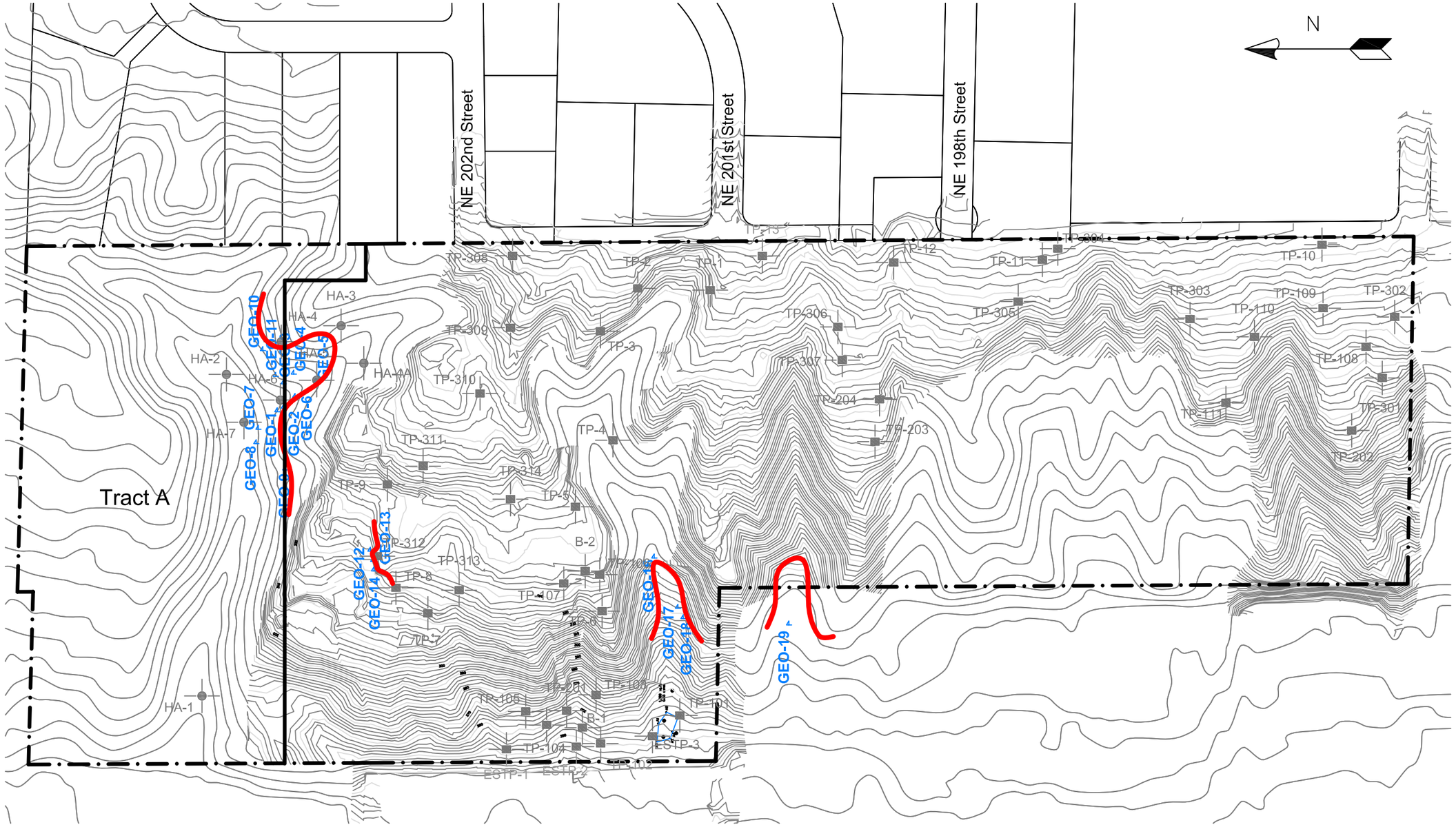

LEGEND

- Project boundary
- TP-1 — Number and approximate location of ECI Test Pit, July 2003
- TP-101 — Number and approximate location of ECI Test Pit, February 2004
- TP-201 — Number and approximate location of ECI Test Pit, April 2004
- TP-301 — Number and approximate location of ECI Test Pit, September 2004
- HA-1 — Number and approximate location of ESNW Hand Auger, June 2006
- ESTP-1 — Number and approximate location of ESNW Test Pit, June 2005
- B-1 — Number and approximate location of ECI Boring, January 2005
- Approximate Seepage Zones
- GEO-1 — Approximate location of groundwater seepage per field observation

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0 200 400

Scale: 1 inch = 200 feet

Reference: Site Plan based on a topographic survey dated April 21, 2006, titled "Wood Trails," prepared by Triad Associates.

No.	Date	Revision	By	CK
1	8/21/06	Original	ACO	BD

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Wood Trails
Groundwater Seepage Location Map

Project Number 409205

Figure 9

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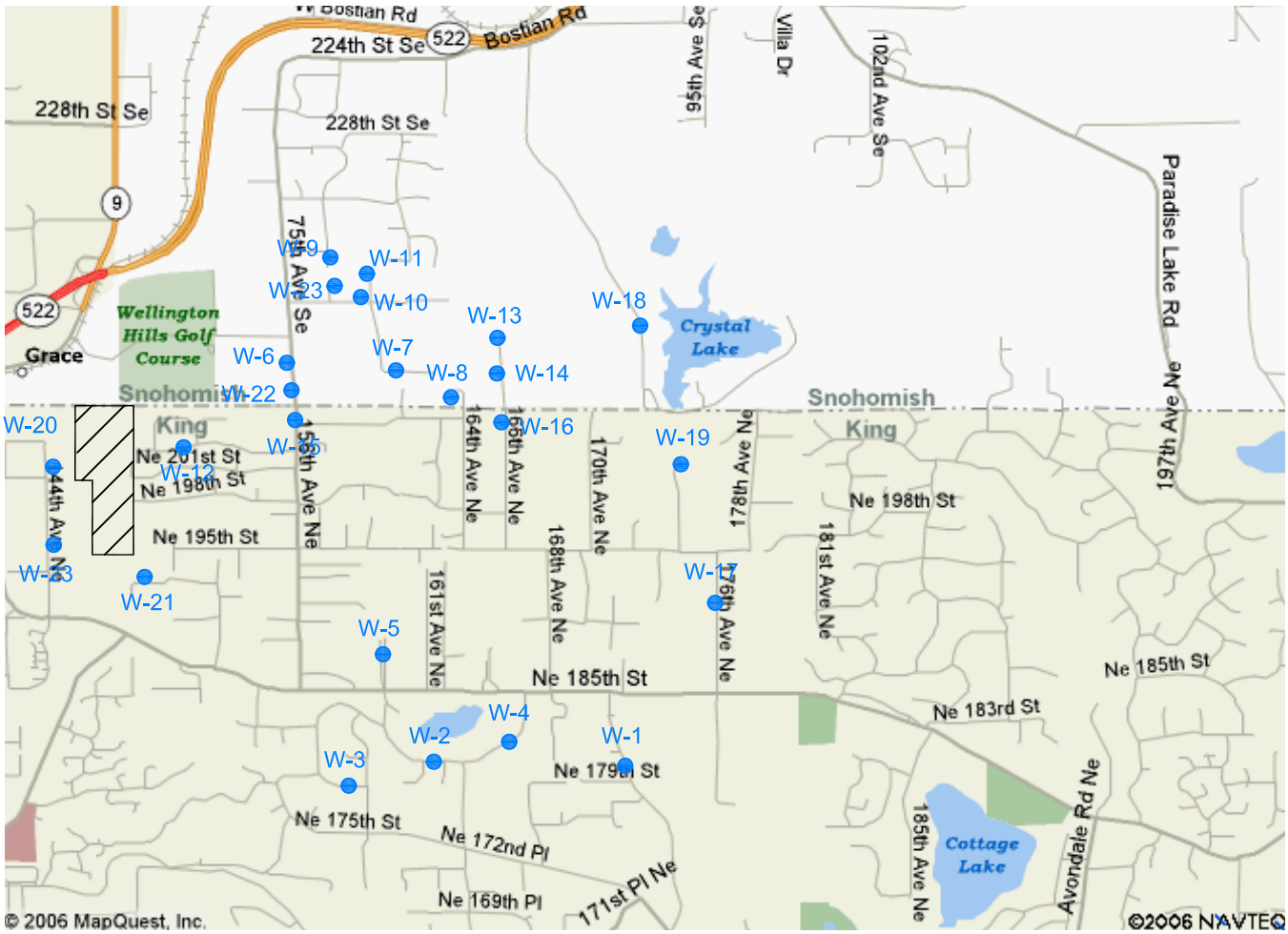
WELL MAP

Not to Scale



Woodinville, WA

LEGEND

Project Boundary

W-1 — Number and approximate location of registered well

Reference: Well locations compiled from Department of Ecology website.

Project Number								
409205	Wood Trails Well Map	NELSON GEOTECHNICAL ASSOCIATES, INC. GEOTECHNICAL ENGINEERS & GEOLOGISTS	No.	Date	Revision	By	CK
Figure 10			1	8/23/06	Original	ACO	BD

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NGA Drafting 2005\409205 City of Woodinville\well map.dwg

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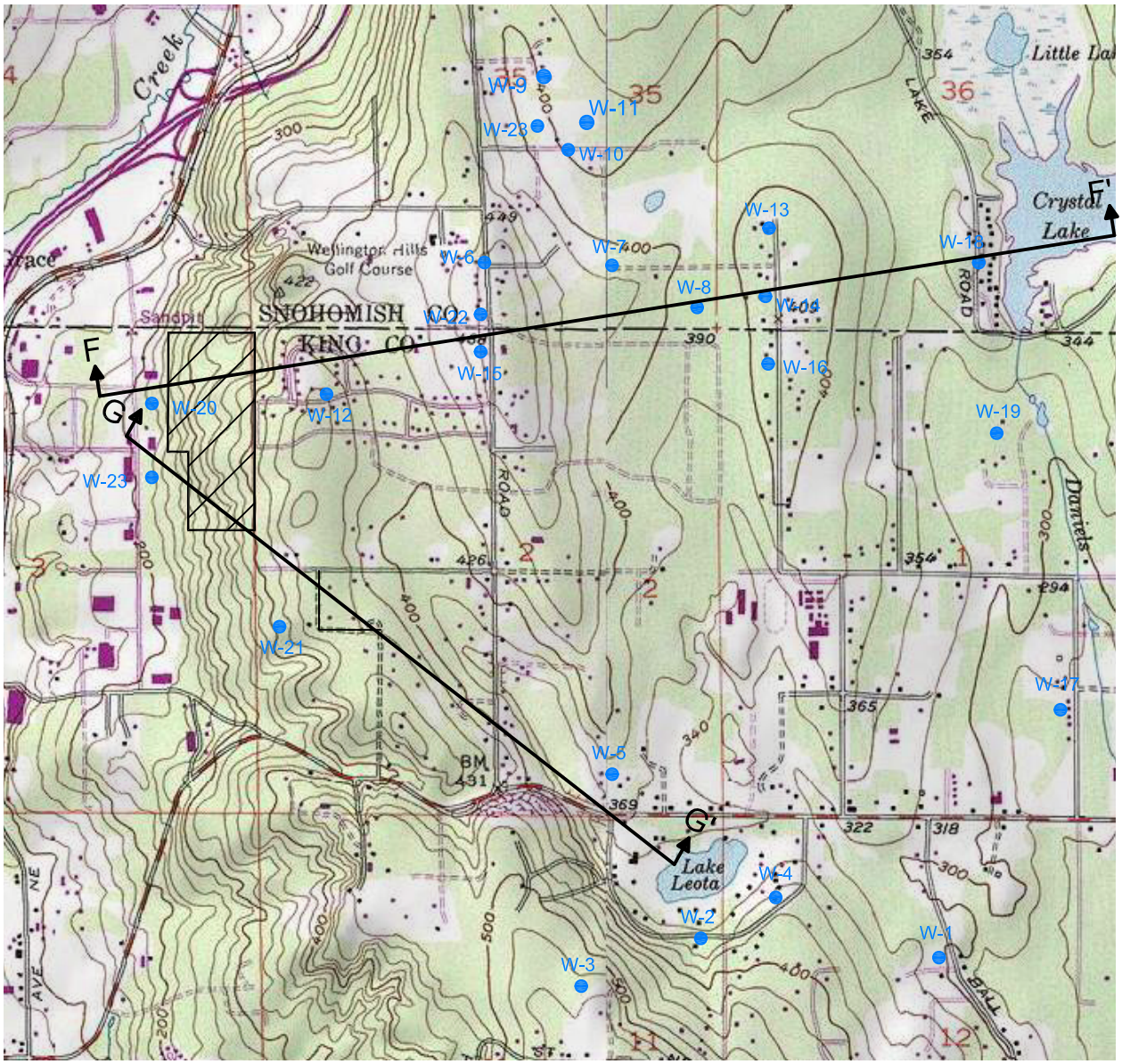

LEGEND

Project Boundary

A A' Approximate location of cross-section

W-1 Number and approximate location of registered well

0 2000 4000

Scale: 1 inch = 2000 feet

Reference: Map created with TOPO! ®© 2003 National Geographic. Well locations compiled from Department of Ecology website.

Project Number 409205	Wood Trails Topographic Well Map	NELSON GEOTECHNICAL ASSOCIATES, INC. GEOTECHNICAL ENGINEERS & GEOLOGISTS	No.	Date	Revision	By	CK
Figure 11		17311-135th Ave. NE, A-500 Woodinville, WA 98072 (425) 486-1669 / Fax 481-2510 Snohomish County (425) 337-1669 Wenatchee/Chelan (509) 665-7696 www.nelsongeotech.com	1	8/23/06	Original	ACO	BD

NGA Drafting 2005\409205 City of Woodinville\well topo map.dwg

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NGA Drafting 2005\409205 City of Woodinville\F-F'.dwg

F

F'

West

East

Approximate Elevation (feet)
Scale: 1" = 200'

800
600
400
200
0

W-22 (Projected 250 ft. Southeast)
W-15 (Projected 150 ft. Northwest)
W-7 (Projected 550 ft. Southeast)
W-8 (Projected 50 ft. Northwest)
W-14 (Projected 50 ft. Northwest)
W-18 (Projected 50 ft. Northwest)
Project Boundary
W-12 (Projected 400 ft. Northwest)
W-20 (Projected 200 ft. Northwest)
Crystal Lake

0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10,000 11,000 12,000

Distance (feet)
Scale: 1" = 1,000'

Well Detail

Well Designation → W-1

Groundwater Level →

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Reference: Cross-section based on a map created with TOPO! ®© 2003 National Geographic. Well locations compiled from Department of Ecology website.

No.	Date	Revision	By	CK
1	8/23/06	Original	ACO	BD

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Wood Trails
Cross-Section F-F'

Project Number 409205

Figure 12

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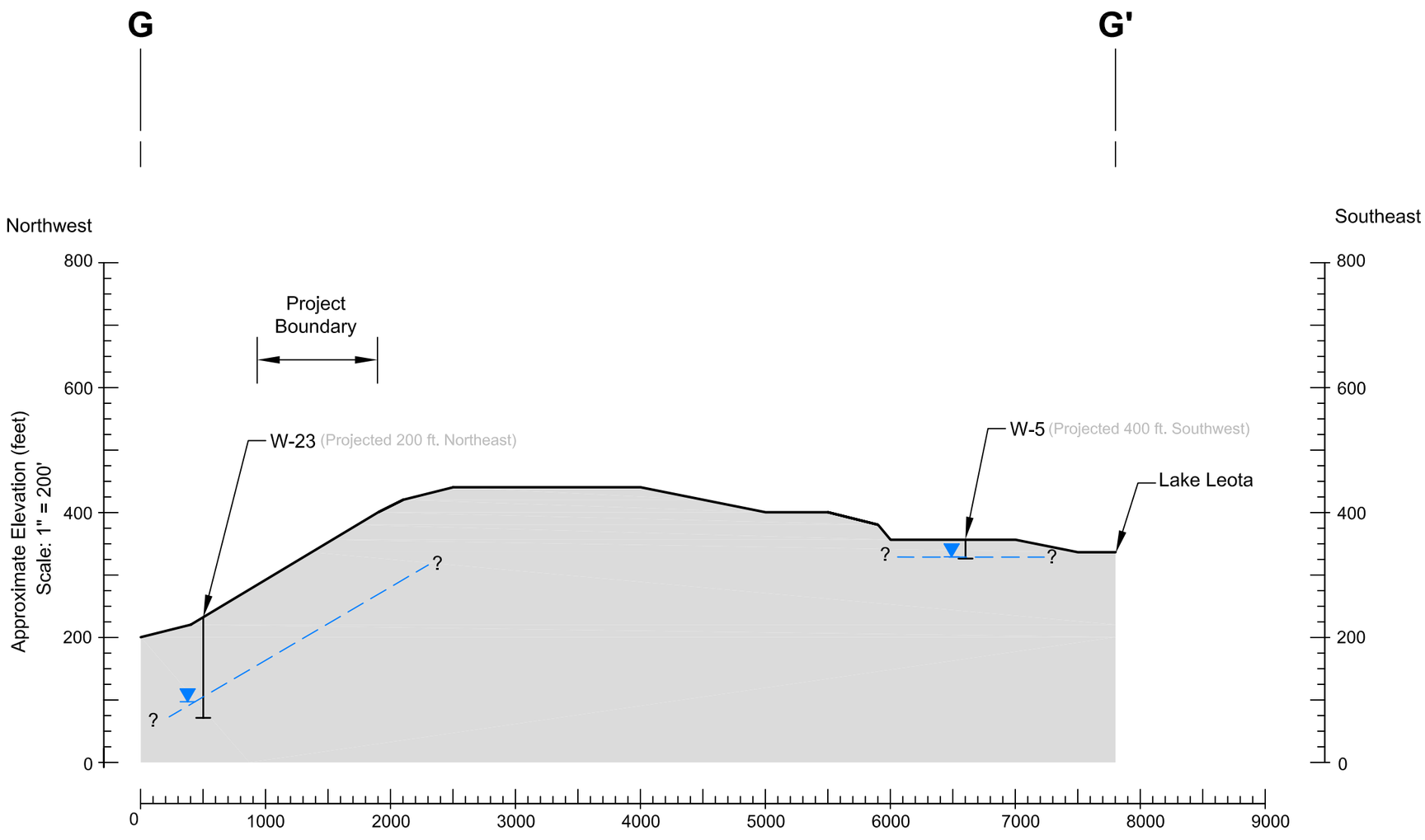
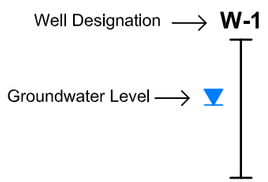
NGA Drafting 2005\409205 City of Woodinville\G-G'.dwg



Well Detail



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No.	Date	Revision	By	CK
1	8/29/06	Original	ACO	BD

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Wood Trails
Cross-Section G-G'

Project Number 409205

Figure 13

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File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

26-5-12A

Start Card No. A 02299

UNIQUE WELL I.D. # ______

Water Right Permit No. ______

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

(1) OWNER: Name Greg Jenkins Address 17830-171st Ave. NE Woodinville

(2) LOCATION OF WELL: County King SE 1/4 NE 1/4 Sec 12 T. 26 N., R 5E W.M.

(2a) STREET ADDRESS OF WELL (or nearest address) 17830-171st Ave. N.E. Woodinville

(3) PROPOSED USE: [X] Domestic [ ] Irrigation [ ] DeWater [ ] Industrial [ ] Test Well [ ] Municipal [ ] Other

(4) TYPE OF WORK: Owner's number of well (If more than one) ______
Abandoned [X] New well [ ] Deepened [ ] Reconditioned [ ]
Method: Dug [ ] Cable [ ] Rotary [ ] Bored [ ] Driven [ ] Jetted [ ]

(5) DIMENSIONS: Diameter of well 24" x 24" inches.
Drilled 13 GL feet. Depth of completed well 13 GL ft.

(6) CONSTRUCTION DETAILS:
Casing installed: Concrete Block Diam. from ______ ft. to ______ ft.
Welded [ ] Liner installed [ ] Threaded [ ] ______ Diam. from ______ ft. to ______ ft.

Perforations: Yes [ ] No [X]
Type of perforator used ______
SIZE of perforations ______ in. by ______ in.
______ perforations from ______ ft. to ______ ft.
______ perforations from ______ ft. to ______ ft.
______ perforations from ______ ft. to ______ ft.

Screens: Yes [ ] No [X]
Manufacturer's Name ______
Type ______ Model No. ______
Diam. ______ Slot size ______ from ______ ft. to ______ ft.
Diam. ______ Slot size ______ from ______ ft. to ______ ft.

Gravel packed: Yes [ ] No [X] Size of gravel ______
Gravel placed from ______ ft. to ______ ft.

Surface seal: Yes [ ] No [X] To what depth? ______ ft.
Material used in seal ______
Did any strata contain unusable water? Yes [ ] No [ ]
Type of water? ______ Depth of strata ______
Method of sealing strata off ______

(7) PUMP: Manufacturer's Name ______
Type: ______ H.P. ______

(8) WATER LEVELS: Land-surface elevation above mean sea level 280± ft.
Static level 5' ft. below top of well Date 3-2-98
Artesian pressure ______ lbs. per square inch Date ______
Artesian water is controlled by ______ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes [ ] No [ ] If yes, by whom? ______
Yield: ______ gal./min. with ______ ft. drawdown after ______ hrs.
" " "
" " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test ______
Bailer test ______ gal./min. with ______ ft. drawdown after ______ hrs.
Airtest ______ gal./min. with stem set at ______ ft. for ______ hrs.
Artesian flow ______ g.p.m. Date ______
Temperature of water ______ Was a chemical analysis made? Yes [ ] No [ ]

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
← 24" →		
+1	Top of Casing	
1'	1"	
2' G.L.	G.L.	
3' //Bentonite////		
4'		
5' SWL		SWL
Sand		

WELL 13' TD super chlorinated. This filled w/ sand 2' above static. This filled w/ Bentonite.

Work Started 3-2-98, 19__. Completed 3-2, 1998

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME B & J DRILLING (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)
Address 9026-38th S.W. Seattle 98126
(Signed) [signature] (WELL DRILLER) License No. 0071
Contractor's Registration No. BJDRICI089PT Date 3/2, 1998

(USE ADDITIONAL SHEETS IF NECESSARY)

ECL 050-1-20 (2/93)

W-1

WATER WELL REPORT

Original & 1st copy - Ecology, 2nd copy - owner, 3rd copy - driller

Construction/Decommission ("x" in circle) 136650
- ○ Construction
- ⊗ Decommission *ORIGINAL CONSTRUCTION Notice of Intent Number* _____

CURRENT Notice of Intent No. A 51286

Unique Ecology Well ID Tag No. none

Water Right Permit No. none

Property Owner Name Ed Young

Well Street Address 16232 NE 180th St

City Woodinville County: King

Location SW 1/4- 1/4 NW 1/4 Sec 13 Twn 26 R 5 (EWM) or WWM (circle one)

Lat/Long: (s,t,r still REQUIRED) Lat Deg _____ Lat Min/Sec _____ Long Deg _____ Long Min/Sec _____

Tax Parcel No. 0426900060

PROPOSED USE: ☐ Domestic ☐ Industrial ☐ Municipal ☐ DeWater ☐ Irrigation ☐ Test Well ☒ Other Decommission

TYPE OF WORK: Owner's number of well (if more than one) _____
☐ New Well ☐ Reconditioned *Method* ☐ Dug ☐ Bored ☐ Driven ☐ Deepened ☐ Cable ☒ Rotary ☐ Jetted

DIMENSIONS: Diameter of well 6 inches, drilled _____ ft
Depth of completed well _____ ft

CONSTRUCTION DETAILS
Casing Installed: ☒ Welded 6" Diam from 0 ft to 55 ft
☐ Liner installed _____" Diam from _____ ft to _____ ft
☐ Threaded _____" Diam from _____ ft to _____ ft

Perforations: ☐ Yes ☒ No
Type of perforator used _____
SIZE of perfs _____ in by _____ in and no of perfs _____ from _____ ft to _____ ft

Screens: ☐ Yes ☒ No ☐ K-Pac Location _____
Manufacturer's Name _____
Type _____ Model No _____
Diam _____ Slot Size _____ from _____ ft to _____ ft
Diam _____ Slot Size _____ from _____ ft to _____ ft

Gravel/Filter packed: ☐ Yes ☒ No ☐ Size of gravel/sand _____
Materials placed from _____ ft to _____ ft

Surface Seal: ☐ Yes ☒ No To what depth? _____ ft
Materials used in seal _____
Did any strata contain unusable water? ☐ Yes ☐ No
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

PUMP: Manufacturer's Name _____
Type: _____ H P _____

WATER LEVELS: Land-surface elevation above mean sea level _____ ft.
Static level 30 ft. below top of well Date 7-17-03
Artesian pressure _____ lbs per square inch Date _____
Artesian water is controlled by _____ (cap,valve, etc)

WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? ☐ Yes ☒ No If yes, by whom? _____
Yield _____ gal /min with _____ ft drawdown after _____ hrs
Yield _____ gal /min with _____ ft drawdown after _____ hrs
Yield _____ gal /min with _____ ft drawdown after _____ hrs
Recovery data (time taken as zero when pump turned off)(water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test _____
Bailer test _____ gal /min with _____ ft drawdown after _____ hrs
Airtest _____ gal /min with stem set at _____ ft for _____ hrs
Artesian flow _____ g p m Date _____
Temperature of water _____ Was a chemical analysis made? ☐ Yes ☒ No

CONSTRUCTION OR DECOMMISSION PROCEDURE
Formation Describe by color, character, size of material and structure, and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information Indicate all water encountered. (USE ADDITIONAL SHEETS IF NECESSARY)

MATERIAL	FROM	TO
Pulled casing	0	55
filled with		
Bentonite	0	55

RECEIVED
AUG 13 2003
DEPT OF ECOLOGY

Start Date 7-17-03 Completed Date 7-17-03

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☒ Driller ☐ Engineer ☐ Trainee Name (Print) Paul Anderson Drilling Company Anderson Drilling Co

Driller/Engineer/Trainee Signature _____ Address 6310 - 145th DR NE

Driller or Trainee License No. 1367 City, State, Zip Lk Stevens WA 98258

If trainee, licensed driller's Signature and License no. _____ Contractor's Registration No. ANDERDC014CK Date 7-17-03

Ecology is an Equal Opportunity Employer ECY 050-1-20 (Rev 4/01)

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

96729

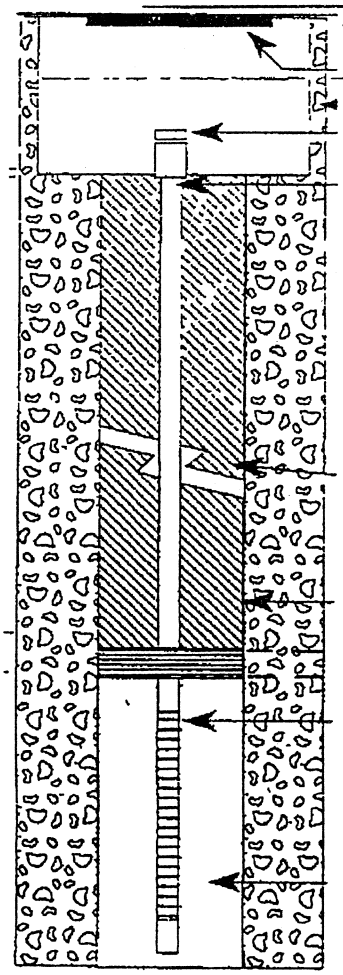
RESOURCE PROTECTION WELL REPORT

START CARD NO R047917

PROJECT NAME Redmond
WELL IDENTIFICATION NO AFM 219
DRILLING METHOD Mud Rotary
DRILLER Travis Skpherds
FIRM Geo-Tech Explorations, Inc.
SIGNATURE [signature]
CONSULTING FIRM Shannon & Wilson
REPRESENTATIVE Bob Mitchell

COUNTY King 26-5E-12D
LOCATION NW¼ NW¼ Sec 12 Twn 26N R 5E
STREET ADDRESS OF WELL 17710 NE 78th Pl
WATER LEVEL ELEVATION None
GROUND SURFACE ELEVATION
INSTALLED 5-21-01
DEVELOPED 5-21-01

AS-BUILT



WELL DATA

Water Tight Cover
Surface Flush Vault
Locking Cap
Casing:
Diameter: 2 in.
Material: PVC

Well Seal:
From 1 ft. To 22 ft.
Material: Bentonite
Amount: 8 bags

Borehole Diameter: 5 in.

Screen:
Material: PVC
From 25 ft. To 35 ft.
Slot Size .010 in.

Filter Pack:
From 22 ft. To 35 ft.
Material Sand
Size 10-20 in.

Completed Depth 35 ft.

FORMATION DESCRIPTION

RECEIVED
JUN 18 2001
DEPARTMENT OF ECOLOGY
WELL DRILLING UNIT

0 ft. to 1 ft.
Grass & Soil

1 ft. to 35 ft.
Sand & Rocks

____ ft. to ____ ft.

____ FT. TO ____ ft.

Number of Wells
Completed the Same: ____

SCALE 1" = ____ PAGE ____ OF ____

ECY 050-12 (Rev 11/89) 91779

W-3

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

ENTERED Start Card No. A 51005

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

UNIQUE WELL I.D. # —

Water Right Permit No. —

(1) OWNER: Name DIANA NASON Address 16SXX -180th ST. N.E Woodinville, WA

(2) LOCATION OF WELL: County King NE 1/4 NE 1/4 Sec 11 T. 26 N., R 5E W.M.

(2a) STREET ADDRESS OF WELL (or nearest address) above 26-6E-11A

(3) PROPOSED USE: ☐ Domestic ☐ Industrial ☐ Municipal ☐ ☐ Irrigation ☐ Test Well ☐ Other ☒ ☐ DeWater

(4) TYPE OF WORK: Owner's number of well (if more than one) #1

Abandoned ☒ New well ☐ Method: Dug ☐ Bored ☐ Deepened ☐ Cable ☒ Driven ☐ Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6" inches. Drilled 130' feet. Depth of completed well 130' ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6" Diam. from +1 ft. to 125' ft.
Welded ☐ Liner installed ☐ Threaded ☐ " Diam. from ft. to ft.
" Diam. from ft. to ft.

Perforations: Yes ☒ No ☐ Type of perforator used Knife
SIZE of perforations ½" in. by 4½" in.
480 perforations from -5' ft. to 125' ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☐ No ☒ Removed Manufacturer's Name
Type Model No.
Diam. Slot size from ft. to ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel
Gravel placed from ft. to ft.

Surface seal: Yes ☐ No ☐ To what depth? ft.
Material used in seal
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name Removed Type: H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level ft.
Static level 114' ft. below top of well Date
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test gal./min. with ft. drawdown after hrs.
Airtest gal./min. with stem set at ft. for hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
Well Perforated from -5'		
TO 125'		
Pressure grouted with BENTONITE		
Slurry		
Casing CUT off -2'		
BENTONITE hole plug used		
from -5' TO Surface		

RECEIVED
AUG 28 2000
Department of Ecology

Work Started 8-21 19. Completed 8-22 19 00

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME AAA Pump & Drilling (Person, firm, or corporation) (TYPE OR PRINT)
Address P.O. Box 296 Monroe, WA. 98272
(Signed) Mike Harmon (Well Driller) License No. 1178
Contractor's Registration No. AAAPUMPS52N9 Date Aug - 23 19 00

(USE ADDITIONAL SHEETS IF NECESSARY)

Ecology is an Equal Opportunity and Affirmative Action employer. For special accommodation needs, contact the Water Resources Program at (206) 407-6600. The TDD number is (206) 407-6006.

ECY 050-1-20 (8/93) * * I

W-4

164534

HAYES DRILLING,INC.

5696 Ershig Rd
Bow, WA 98232-9672
HAYESDI106J5

phone: 360-766-6110
fax: 360-766-6133
www.hayesdrilling.com

WELL REPORT

JOB NUMBER: A2762
PROJECT NAME:
OWNER NAME: Mace Brady
REPRESENTATIVE:
CONSULTING FIRM:
DRILLER: Curtis Isaacson
COMPANY NAME: Hayes Drilling Inc.
DRILLING METHOD:
LAND ELEVATION:

START CARD NO.: A71890
COUNTY: King
TAX ID NO:
NE 1/4 NE 1/4 SEC 11 TWN 26 RNG 5 E
ADDRESS: 160th Ave NE Woodinville, Wa.
WELL ID NO:
WATER ELEVATION:
INSTALLED: Abandonment
DEVELOPED:

AS BUILT	WELL DATA	FORMATION DESCRIPTION
0'	Diameter of Well: 36" Depth of Well: 30' Abandoned existing dug well by backfilling with chlorinated utility sand two feet above static and then back filling with bentonite chips to surface. Static level: 28'	

RECEIVED
JAN 14 2005
DEPARTMENT OF ECOLOGY
WELL DRILLING UNIT

Date Completed: 12/30/2004 Driller: Curtis Isaacson 2562 License No.

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

27/05-35R

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. .....
Permit No. .....

(1) OWNER: Name DWIGHT Schultz Address 24207 75th Ave SE Woodinville

(2) LOCATION OF WELL: County Snohomish — SE ¼ SE ¼ Sec 35 T 27 N., R 5E W.M.

Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic [X] Industrial [ ] Municipal [ ]
Irrigation [ ] Test Well [ ] Other [ ]

(4) TYPE OF WORK: Owner's number of well (if more than one) .....
New well [X] Method: Dug [ ] Bored [ ]
Deepened [ ] Cable [X] Driven [ ]
Reconditioned [ ] Rotary [ ] Jetted [ ]

(5) DIMENSIONS: Diameter of well 6" inches.
Drilled ..... ft. Depth of completed well 138 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 6" Diam. from 0 ft. to 133 ft.
Threaded [ ] ." Diam. from ..... ft. to ..... ft.
Welded [X] ." Diam. from ..... ft. to ..... ft.

Perforations: Yes [ ] No [X]
Type of perforator used .....
SIZE of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

Screens: Yes [X] No [ ]
Manufacturer's Name Johnson
Type Stainless Model No .....
Diam. 6 Slot size 12 from 133 ft. to 138 ft.
Diam. ..... Slot size ..... from ..... ft. to ..... ft.

Gravel packed: Yes [ ] No [ ] Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

Surface seal: Yes [X] No [ ] To what depth? 18 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes [ ] No [X]
Type of water? ..... Depth of strata .....
Method of sealing strata off .....

(7) PUMP: Manufacturer's Name Berkely
Type: Submersible H.P. 3/4

(8) WATER LEVELS: Land-surface elevation above mean sea level ..... ft.
Static level 118 ft. below top of well Date 3-23-87
Artesian pressure ..... lbs. per square inch Date .....
Artesian water is controlled by ..... (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes [ ] No [X] If yes, by whom? .....
Yield: ..... gal./min. with ..... ft. drawdown after ..... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test .....
Bailer test 10 gal./min. with 3 ft. drawdown after 1 hrs.
Artesian flow ..... g.p.m. Date .....
Temperature of water ..... Was a chemical analysis made? Yes [ ] No [ ]

(10) WELL LOG:
Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
Top Soil	0	1
Brown Clayey Till	1	16
Gray " Till	16	117
Gray Sandy Gravel (water Bearing)	117	138

RECEIVED
MAR 31 1987
DEPT. OF ECOLOGY

Work started 3-17 19 87 Completed 3-23 19 87

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Statewide Drilling Co. (Person, firm, or corporation) (Type or print)
Address 1333 Beacon Way So.
[Signed] David O. Gentes (Well Driller)
License No. 0541 Date 3-23 19 87

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20

W-6

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

File Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. [redacted]

Water Right Permit No. [redacted] 27/SE/35 R

(1) OWNER: Name Floyd Buchhold Address 8130-242 St SE

(2) LOCATION OF WELL: County SNOHOMISH, S ½ SE ¼ SE ¼ SW ¼ Sec 35 T. 27 N., R 05 W.M.

(2a) STREET ADDDRESS OF WELL (or nearest address) 8130-242nd St S.E., WOODINVILLE, 98072

(3) PROPOSED USE: ☐ Domestic ☐ Industrial ☐ Municipal ☐ ☐ Irrigation ☐ Test Well ☐ Other ☐ ☐ DeWater
Class #4

(4) TYPE OF WORK: Owner's number of well (if more than one) Pump Test Only
Abandoned ☐ New well ☐ Method: Dug ☐ Bored ☐ Deepened ☐ Cable ☐ Driven ☐ Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6" inches.
Drilled 94 feet. Depth of completed well ____ ft.

(6) CONSTRUCTION DETAILS:
Casing Installed: ____ " Diam. from ____ ft. to ____ ft.
Welded ☐ Liner Installed ☐ Threaded ☐ ____ " Diam. from ____ ft. to ____ ft.
____ " Diam. from ____ ft. to ____ ft.

Perforations: Yes ☐ No ☐
Type of perforator used ____
SIZE of perforations ____ in. by ____ in.
____ perforations from ____ ft. to ____ ft.
____ perforations from ____ ft. to ____ ft.
____ perforations from ____ ft. to ____ ft.

Screens: Yes ☐ No ☐
Manufacturer's Name ____
Type ____ Model No. ____
Diam. ____ Slot size ____ from ____ ft. to ____ ft.
Diam. ____ Slot size ____ from ____ ft. to ____ ft.

Gravel packed: Yes ☐ No ☐ Size of gravel ____
Gravel placed from ____ ft. to ____ ft.

Surface seal: Yes ☐ No ☐ To what depth? ____ ft.
Material used in seal ____
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? ____ Depth of strata ____
Method of sealing strata off ____

(7) PUMP: Manufacturer's Name Goulds
Type: Submersible H.P. 1

(8) WATER LEVELS: Land-surface elevation above mean sea level ____ ft.
Static level 71' 6" ft. below top of well Date Sept 23-91
Artesian pressure ____ lbs. per square inch Date ____
Artesian water is controlled by ____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☒ No ☐ If yes, by whom? AAA Pump & Drill
Yield: 20.5 gal./min. with 21' 6" ft. drawdown after 4 hrs.
" " " " " "
" " " " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level
0	93'				
5min	71' 6"				

Date of test Sept-23-91
Bailer test ____ gal./min. with ____ ft. drawdown after ____ hrs.
Airtest ____ gal./min. with stem set at ____ ft. for ____ hrs.
Artesian flow ____ g.p.m. Date ____
Temperature of water ____ Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
Well Not Drilled By AAA		
Pump Test Only		
Pump Set 92'		

RECEIVED
OCT 25 1991
DEPT. OF ECOLOGY

Work started ____, 19. Completed ____, 19

WELL CONSTRUCTOR CERTIFICATION:
I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME AAA Pump/Drilling/Filtration (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)
Address P.O. Box 296 Monroe, WA.
(Signed) Mike Hagman (WELL DRILLER) License No. 1178
Contractor's Registration No. AAAPUMDIS249 Date Sept-23, 1991

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20 (10/87) -1329-

W-7

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

126453

9944

REVISED

WATER WELL REPORT
STATE OF WASHINGTON

Start Card No. W153911
Water Right Permit No. AHB759

(1) OWNER: Name RANDY WAHLEN Address 8024 242ND ST SE WOODINVILLE, WA 98072-

(2) LOCATION OF WELL: County SNOHOMISH - SE 1/4 SE 1/4 Sec 35 T 27 N., R 5E WM
(2a) STREET ADDRESS OF WELL (or nearest address) 8131 243RD STREET SE

(3) PROPOSED USE: DOMESTIC

(4) TYPE OF WORK: Owner's Number of well (If more than one) 1
NEW WELL Method: ROTARY

(5) DIMENSIONS: Diameter of well 6 inches
Drilled 100 ft. Depth of completed well 94.2 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 6 " Dia. from 3 ft. to 90.75 ft.
WELDED " Dia. from ft. to ft.
" Dia. from ft. to ft.

Perforations: NO
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: YES
Manufacturer's Name ALLOY MACHINE
Type STAINLESS STEEL Model No.
Diam. 6 slot size 15 from 89.2 ft. to 94.2 ft.
Diam. slot size from ft. to ft.

Gravel packed: NO Size of gravel
Gravel placed from ft. to ft.

Surface seal: YES To what depth? 18 ft.
Material used in seal BENTONITE
Did any strata contain unusable water? NO
Type of water? Depth of strata ft.
Method of sealing strata off

(7) PUMP: Manufacturer's Name GRUNDFOS
Type H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level ... ft.
Static level 76 ft. below top of well Date 01/13/03
Artesian Pressure lbs. per square inch Date
Artesian water controlled by

(10) WELL LOG

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change in formation.

MATERIAL	FROM	TO
BROWN SILT & SAND CLAY & GRAVEL	0	25
BROWN SAND & SAND	25	35
BROWN SAND & SILT	35	43
BROWN SAND SILT	43	66
BROWN COARSE SAND	66	69
BROWN COARSE & GRAVEL	69	86
BROWN GRAVEL SAND & WATER	86	

RECEIVED
JAN 24 2003
DEPARTMENT OF ECOLOGY
WELL DRILLING UNIT

'03 JAN 23 P2:21
DEPT. OF ECOLOGY
FISCAL & BUDGET

Work started 12/23/02 Completed 12/24/02

(9) WELL TESTS: Drawdown is amount water level is lowered below static level.
Was a pump test made? YES If yes, by whom? HAYES DRILLING
Yield: 15 gal./min with 3.2 ft. drawdown after 1 hrs.

Recovery data
Time Water Level Time Water Level Time Water Level

Date of test / /
Bailer test 10 gal/min. 8 ft. drawdown after 1 hrs.
Air test gal/min. w/ stem set at ft. for hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? YES

WELL CONSTRUCTOR CERTIFICATION:
I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME HAYES DRILLING, INC.
(Person, firm, or corporation) (Type or print)

ADDRESS 5696 ERSHIG RD. BOW, WA

[SIGNED] M. McAdam License No. 2566

Contractor's
Registration No. HAYESDI106J5 Date 01/22/03

07568

W-8

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

132791

9

10152

WATER WELL REPORT
STATE OF WASHINGTON

Start Card No. W153948
AGH 046

(1) OWNER: Name LUND, COLIN Address 11814 115TH AVE NE KIRKLAND, WA 98034-

(2) LOCATION OF WELL: County SNOHOMISH - NW 1/4 SE 1/4 Sec 35 T 27 N., R 5 WM

(2a) STREET ADDRESS OF WELL (or nearest address) 23618 77TH AVE SE

(3) PROPOSED USE: DOMESTIC

(4) TYPE OF WORK: Owner's Number of well (If more than one)
NEW WELL Method: ROTARY

(5) DIMENSIONS: Diameter of well 6 inches
Drilled 125 ft. Depth of completed well 123 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 6 " Dia. from +2 ft. to 119 ft.
WELDED " Dia. from ft. to ft.
" Dia. from ft. to ft.

Perforations: NO
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: YES
Manufacturer's Name ALLOY MACHINE
Type STAINLESS STEEL Model No.
Diam. 6 slot size 25 from 118 ft. to 123 ft.
Diam. slot size from ft. to ft.

Gravel packed: NO Size of gravel
Gravel placed from ft. to ft.

Surface seal: YES To what depth? 18 ft.
Material used in seal BENTONITE
Did any strata contain unusable water? NO
Type of water? Depth of strata ft.
Method of sealing strata off

(7) PUMP: Manufacturer's Name GRUNDFOS
Type SUBMERSIBLE H.P. 3/4

(8) WATER LEVELS: Land-surface elevation above mean sea level ... ft.
Static level 96.2 ft. below top of well Date 05/06/03
Artesian Pressure lbs. per square inch Date
Artesian water controlled by

(9) WELL TESTS: Drawdown is amount water level is lowered below static level.
Was a pump test made? YES If yes, by whom? HAYES DRILLING
Yield: 14.8 gal./min with 2.4 ft. drawdown after 1 hrs.

Recovery data

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test 4 gal/min. 1 ft. drawdown after 1 hrs.
Air test 22 gal/min. w/ stem set at 115 ft. for 1 hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? YES

(10) WELL LOG

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change in formation.

MATERIAL	FROM	TO
BROWN SILT SAND & CLAY & GRAVEL	0	19
BROWN GRAVEL SAND & CLAY	19	32
BROWN SAND GRAVEL & CLAY	32	41
BROWN SAND & SILT	41	60
BROWN SAND & SILT & WOOD	60	75
BROWN SAND & GRAVEL	75	85
BROWN GRAVEL & SAND	85	107
BROWN SAND & GRAVEL	107	117
BROWN GRAVEL & SAND & WATER	117	

RECEIVED
MAY 21 2003
DEPARTMENT OF ECOLOGY
WELL DRILLING UNIT

'03 MAY 19 P1:07
DEPT. OF ECOLOGY
FISCAL & BUDGET

Work started 05/01/03 Completed 05/02/03

WELL CONSTRUCTOR CERTIFICATION:
I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME HAYES DRILLING, INC.
(Person, firm, or corporation) (Type or print)

ADDRESS 5696 ERSHIG RD. BOW, WA

[SIGNED] M. McAdam License No. 2566

Contractor's
Registration No. HAYESDI106J5 Date 05/13/03

07602

W-

21/C8 - 35K
10

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Application No. ...
Permit No. ...

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

(1) OWNER: Name DAVID GERZSENYE Address 12322 N.E. 134th KIRKLAND, W

(2) LOCATION OF WELL: County SNOh. PROPERTY Add - 7810 238th S.E. WOODINVILLE (NW¼, SE¼ Sec 35 27/C8E)

Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐ Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☒ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 118 ft. Depth of completed well 118' ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 6" Diam. from +1 ft. to 112'5" ft.
Threaded ☐ ....." Diam. from ..... ft. to ..... ft.
Welded ☒ ....." Diam. from ..... ft. to ..... ft.

Perforations: Yes ☐ No ☒
Type of perforator used.....
SIZE of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

Screens: Yes ☒ No ☐
Manufacturer's Name JOHNSON.
Type STAINLESS Model No. .....
Diam. 6" Slot size 14 from 113' ft. to 118 ft.
Diam. ..... Slot size ..... from ..... ft. to ..... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

Surface seal: Yes ☒ No ☐ To what depth? 24 ft.
Material used in seal BENTONITE.
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? ..... Depth of strata .....
Method of sealing strata off .....

(7) PUMP: Manufacturer's Name Flint & Walling.
Type: Sub H.P. 1

(8) WATER LEVELS: Land-surface elevation above mean sea level..... ft.
Static level 78 ft. below top of well Date 5-12-79.
Artesian pressure ..... lbs. per square inch Date .....
Artesian water is controlled by N/A. (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom? .....
Yield: ..... gal./min. with ..... ft. drawdown after ..... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test N/A.
Bailer test 25 gal./min. with 0 ft. drawdown after 1½ hrs.
Artesian flow ..... g.p.m. Date .....
Temperature of water ..... Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
BROWN LOAM	0	4
BROWN SANDY HARD PAN	4	23
BROWN HARD PAN	23	46
GRAY HARD PAN	46	51
BROWN DRY SAND & GRAVEL	51	88
GRAY WASHED MEDIUM TO CSE SAND & GRAVEL	88	118

RECEIVED
JUN 30 1979
DEPT. OF ECOLOGY

Work started 5-9, 19 79. Completed 5-12, 19 79.

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Bucans Drlg Co. (Person, firm, or corporation) (Type or print)

Address 1519 DAYTON CT. N.E RENTON, W

[Signed] Jan Bucans (Well Driller)

License No. 0690 Date 6-25, 19 79

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20

W-10

27/06-35 K

Start Card No 026735

File Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Water Right Permit No. _____

(1) OWNER: Name G. AMUNDSON Address 23705 79th SE WOODINVILLE WA.

(2) LOCATION OF WELL: County SNOHOMISH NW¼ SE¼ Sec 35 T. 27 N., R. 5 W.M.

(2a) STREET ADDDRESS OF WELL (or nearest address) 23705 79th SE WOODINVILLE WA. 98072

(3) PROPOSED USE: ☑ Domestic ☐ Industrial ☐ Municipal ☐ ☐ Irrigation ☐ Test Well ☐ Other ☐ ☐ DeWater

(4) TYPE OF WORK: Owner's number of well (if more than one) _____

Abandoned ☐ New well ☑ Method: Dug ☐ Bored ☐ Deepened ☐ Cable ☑ Driven ☐ Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches. Drilled 127 feet. Depth of completed well 122 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 6 " Diam. from +1 ft. to 117 ft.
Welded ☑ _____ " Diam. from _____ ft. to _____ ft.
Liner installed ☐
Threaded ☐ _____ " Diam. from _____ ft. to _____ ft.

Perforations: Yes ☐ No ☐
Type of perforator used _____
SIZE of perforations _____ in. by _____ in.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

Screens: Yes ☑ No ☐
Manufacturer's Name JOHNSON
Type _____ Model No. _____
Diam. 5" Slot size 20 from 117 ft. to 122 ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes ☐ No ☐ Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes ☑ No ☐ To what depth? 18 ft.
Material used in seal BENTONITE
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name _____
Type: _____ H.P. _____

(8) WATER LEVELS: Land-surface elevation above mean sea level _____ ft.
Static level 95 ft. below top of well Date 10-16-89
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom? _____
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test _____
Bailer test 3.5 gal./min. with 19 ft. drawdown after 2 hrs.
Airtest _____ gal./min. with stem set at _____ ft. for _____ hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water _____ Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
TOP SOIL BROWN	0	12
GRAY ~~TAN~~ CONGLOMERATE	12	34
BOULDERS, HARD (W)	34	36
SAND AND GRAVEL (W)	36	40
GRAY CONGLOMERATE	40	64
GRAVEL AND LITTLE WATER	110	122

RECEIVED
OCT 23 1989
DEPARTMENT OF ECOLOGY
NORTHWEST REGION

Work started 10-6-89 19. Completed 10-16 19 89

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME SKY RIVER WELL DRILLING (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)
Address P.O. BOX 883 MONROE WA. 98272
(Signed) C A Oaks License No. 1562 (WELL DRILLER)
Contractor's Registration No. SKYRIWD132BE Date 10-22 19 89

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20 (10/87) -1329-

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

W-1

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No 27105 - 35K
Permit No. 12

(1) OWNER: Name Ken Tacke Address 14952 N.E. 202 ST Woodinville

(2) LOCATION OF WELL: County Snohomish NW ¼ SE ¼ Sec 35 T. 27 N. R. 5E W.M.
Bearing and distance from section or subdivision corner 30' South and 525' East of NW Property Corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☒ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 + inches.
Drilled 135'6" ft. Depth of completed well 135'6" ft.

(6) CONSTRUCTION DETAILS:
Casing installed: ..." Diam. from .... ft. to 130'6" ft.
Threaded ☐ ..." Diam. from .... ft. to .... ft.
Welded ☒ ..." Diam. from .... ft. to .... ft.

Perforations: Yes ☐ No ☒
Type of perforator used ....
SIZE of perforations .... in. by .... in.
.... perforations from .... ft. to .... ft.
.... perforations from .... ft. to .... ft.
.... perforations from .... ft. to .... ft.

Screens: Yes ☒ No ☐ Johnson
Manufacturer's Name ....
Type SS Model No ....
Diam. 6 Slot size 14 from 130'6" ft. to 125'6" ft.
Diam. .... Slot size .... from .... ft. to .... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel: ....
Gravel placed from .... ft. to .... ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.
Material used in seal. Bentonite
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? .... Depth of strata ....
Method of sealing strata off ....

(7) PUMP: Manufacturer's Name ....
Type: .... H.P ....

(8) WATER LEVELS: Land-surface elevation above mean sea level .... ft.
Static level 96'8" ft. below top of well Date 5/23/79
Artesian pressure .... lbs. per square inch Date ....
Artesian water is controlled by .... (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom? ....
Yield: .... gal./min. with .... ft. drawdown after .... hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test ....
Bailer test 10 gal./min. with 0 ft. drawdown after 1 hrs.
Artesian flow .... g.p.m. Date ....
Temperature of water 46 Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:
Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
Soil		1
Sandy clay and gravels	1	3
Gellah clay Hard	3	60
Sandy clay	60	85
gravelly mixed sand w/some clay	85	100
Sand w/some clay	100	110
Sand w/water	110	135

Work started 3/16 1979 Completed 3/23 1979

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Ralph Medlen Well Drilling (Person, firm, or corporation) (Type or print)
Address 417 N. 87th Seattle 98103
[Signed] Ralph Medlen (Well Driller)
License No. 0306 Date 3/26 1979

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20

W-1

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

13

Start Card No. W 101013

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

UNIQUE WELL I.D. # ACN 643

Water Right Permit No. 27-5-36N

(1) OWNER: Name Andy Airz Address 24024 85th Ave SE Woodenville Wa

(2) LOCATION OF WELL: County Snohomish SW 1/4 SW 1/4 Sec 36 T. 27 N., R 5 W.M.

(2a) STREET ADDRESS OF WELL (or nearest address) Same as above

(3) PROPOSED USE: ☒ Domestic ☐ Industrial ☐ Municipal ☐ ☐ Irrigation ☐ Test Well ☐ Other ☐ ☐ DeWater

(4) TYPE OF WORK: Owner's number of well (if more than one) ____
Abandoned ☐ New well ☒ Method: Dug ☐ Bored ☐ Deepened ☐ Cable ☐ Driven ☐ Reconditioned ☐ Rotary ☒ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches. Drilled 120 feet. Depth of completed well 118 ft.

(6) CONSTRUCTION DETAILS:
Casing Installed: 6 " Diam. from +2 ft. to 114 ft.
Welded ☒ " Diam. from ____ ft. to ____ ft.
Liner Installed ☐ " Diam. from ____ ft. to ____ ft.
Threaded ☐

Perforations: Yes ☐ No ☒
Type of perforator used ____
SIZE of perforations ____ in. by ____ in.
____ perforations from ____ ft. to ____ ft.
____ perforations from ____ ft. to ____ ft.
____ perforations from ____ ft. to ____ ft.

Screens: Yes ☒ No ☐
Manufacturer's Name Johnson
Type Stainless Steel Model No. ____
Diam. 6 Slot size 20 from 113 ft. to 118 ft.
Diam. ____ Slot size ____ from ____ ft. to ____ ft.

Gravel packed: Yes ☐ No ☒ Size of gravel ____
Gravel placed from ____ ft. to ____ ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? ____ Depth of strata ____
Method of sealing strata off ____

(7) PUMP: Manufacturer's Name ____
Type: ____ H.P. ____

(8) WATER LEVELS: Land-surface elevation above mean sea level ____ ft.
Static level 92 ft. below top of well Date 5-14-98
Artesian pressure ____ lbs. per square inch Date ____
Artesian water is controlled by ____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom? ____
Yield: ____ gal./min. with ____ ft. drawdown after ____ hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test ____
Bailer test 10 gal./min. with 5 ft. drawdown after 1 hrs.
Airtest 20 gal./min. with stem set at 115 ft. for 1 hrs.
Artesian flow ____ g.p.m. Date ____
Temperature of water ____ Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
Topsoil	0	1
Brown silty clay & gravel	1	35
Gray silty clay & gravel	35	50
Brown silty sand & gravel	50	73
Brown silty sand	73	96
Brown fine sand & water	96	110
Brown sand, gravel & water	110	

RECEIVED
MAY 18 1998
DEPT OF ECOLOGY

Work Started 5-14-98 19. Completed 5-14-98 19

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME Aquatech Well Drilling & Pumps Inc (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address 272 Butler Cr RD Sedro Woolley

(Signed) [signature] (WELL DRILLER) License No. 1825

Contractor's Registration No. AQUATWD040KJ Date 5-15-98 19

(USE ADDITIONAL SHEETS IF NECESSARY)

Ecology is an Equal Opportunity and Affirmative Action employer. For special accommodation needs, contact the Water Resources Program at (206) 407-6600. The TDD number is (206) 407-6006.

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. W42273
UNIQUE WELL I.D. # AAX214
Water Right Permit No. 27-5E-36N

(1) OWNER: Name JAN SUNDE Address 21945 OAK WAY, BRIER, WA. 98036

(2) LOCATION OF WELL: County Snohomish SW 1/4 SW 1/4 Sec. 36 T. 27 N., R. 5E W.M.

(2a) STREET ADDRESS OF WELL (or nearest address) 24225 85th AVE. SE. Woodinville, WA. 98072

(3) PROPOSED USE: [X] Domestic [ ] Industrial [ ] Municipal [ ] Irrigation [ ] Test Well [ ] Other [ ] DeWater

(4) TYPE OF WORK: Owner's number of well (if more than one) ____
Abandoned [ ] New well [X] Method: Dug [ ] Bored [ ] Deepened [ ] Cable [ ] Driven [ ] Reconditioned [ ] Rotary [X] Jetted [ ]

(5) DIMENSIONS: Diameter of well 6" inches. Drilled 120 feet. Depth of completed well 120 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 6" Diam. from 1.5 ft. to 120 ft.
Welded [X] Liner installed [ ] Threaded [ ]
" Diam. from ____ ft. to ____ ft.
" Diam. from ____ ft. to ____ ft.

Perforations: Yes [ ] No [X]
Type of perforator used ____
SIZE of perforations ____ in. by ____ in.
____ perforations from ____ ft. to ____ ft.
____ perforations from ____ ft. to ____ ft.
____ perforations from ____ ft. to ____ ft.

Screens: Yes [ ] No [X]
Manufacturer's Name ____
Type ____ Model No. ____
Diam. ____ Slot size ____ from ____ ft. to ____ ft.
Diam. ____ Slot size ____ from ____ ft. to ____ ft.

Gravel packed: Yes [ ] No [X] Size of gravel ____
Gravel placed from ____ ft. to ____ ft.

Surface seal: Yes [X] No [ ] To what depth? 18 ft.
Material used in seal BENTONITE CHIPS
Did any strata contain unusable water? Yes [ ] No [X]
Type of water? ____ Depth of strata ____
Method of sealing strata off ____

(7) PUMP: Manufacturer's Name SPECIALTY PUMP
Type: ____ H.P. 3/4

(8) WATER LEVELS: Land-surface elevation above mean sea level ____ ft.
Static level 94 ft. below top of well Date ____
Artesian pressure ____ lbs. per square inch Date ____
Artesian water is controlled by ____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes [ ] No [X] If yes, by whom? ____
Yield: ____ gal./min. with ____ ft. drawdown after ____ hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test ____
Bailer test ____ gal./min. with ____ ft. drawdown after ____ hrs.
Airtest 15 gal./min. with stem set at 115 ft. for 1 hrs.
Artesian flow ____ g.p.m. Date ____
Temperature of water ____ Was a chemical analysis made? Yes [X] No [ ]

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
TOPSOIL - SILT/CLAY	0'	10'
CLAY, GRAVEL, SAND	10'	18'
GRAVEL SAND, CLAY/SILT	18'	40'
GREY - SAND SILT/CLAY	40'	48'
BROWN SILTY SAND	48'	58'
BROWN SAND	58'	65'
SAND, GRAVEL	65'	81'
BROWN SAND	81'	92'
BROWN SAND, GRAVEL	92'	98'
BROWN SAND, GRAVEL, CLAY	98'	105'
GREY GRAVEL, COARSE SAND	105'	120'

RECEIVED
JAN 25 1996
DEPT. OF ECOLOGY

RECEIVED
JAN 25 1996
DEPT. OF ECOLOGY

Work Started 1-5-96 19. Completed 1-8 19 96

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME CASCADE Drilling INC. (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)
Address P.O. Box 1184 Woodinville WA.
(Signed) Wayne (WELL DRILLER) License No. 623
Contractor's Registration No. CASAD 1088KK Date 1-18 19 96

(USE ADDITIONAL SHEETS IF NECESSARY)

Ecology is an Equal Opportunity and Affirmative Action employer. For special accommodation needs, contact the Water Resources Program at (206) 407-6600. The TDD number is (206) 407-6006.

ECY 050-1-20 (9/93)

W-14

The Department of Ecology does NOT Warranty the Data and/or the information on this Well Report.

RESOURCE PROTECTION WELL REPORT

CURRENT Notice of Intent No. S22930

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

Construction/Decommission *("x" in circle)* 176073

(X) Construction

( ) Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well *("x" in circle)*

(X) Resource Protection

( ) Geotech Soil Boring

Property Owner City of Woodinville - Water Tower

Site Address 15600 NE 203rd PL

Consulting Firm LGI Adapt

City Woodinville County: King

Unique Ecology Well ID

Tag No: ~

Location NW 1/4 NE 1/4 Sec 2 Twn 26 R 5E (E)WM *circle one* or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s, t, r still REQUIRED) Lat Deg _____ Lat Min/Sec _____

Long Deg _____ Long Min/Sec _____

(X) Driller ( ) Engineer ( ) Trainee Name (Print) Frank Scott

Driller/Engineer/Trainee Signature [signature]

Driller or Trainee License No. 2549

Tax Parcel No. ~

Cased or Uncased Diameter 8" Static Level N/A

Work/Decommission Start Date 6/16/05

Work/Decommission Completed Date 6/16/05

If trainee, licensed driller's Signature and License no. _____

Well Data W05-348

Construction/Design	Formation Description
CONCRETE SURFACE SEAL	0 - 5 ft. Brown Sandy Silt
BACKFILL Bent. chips	5 — 30 ft. Brownish grey Sandy silt & gravels
DEPTH OF BORING 30'0"	— ft.

RECEIVED
JUN 30 2005
DEPT OF ECOLOGY

Scale 1"= _____ Page _____ of _____

ECY 050-12 (Rev 2/01)

W-15

116126

WATER WELL REPORT

ECOLOGY Original & 1st copy Ecology 2nd copy owner 3rd copy driller

Construction/Decommission (x in circle)

○ Construction

(X) Decommission *ORIGINAL CONSTRUCTION Notice of Intent Number*_____

CURRENT Notice of Intent No A 544455

Unique Ecology Well ID Tag No N/A

Water Right Permit No _____

Property Owner Name Tighe Construction

Well Street Address 20345 166th Ave NE

City Woodinville County King

Location N.W 1/4 1/4 NW 1/4 Sec 1 Twn 26 R 5 EWM or WWM (circle one)

Lat/Long (s,t,r still REQUIRED) Lat Deg ____ Lat Min/Sec ____ Long Deg ____ Long Min/Sec ____

Tax Parcel No _____

PROPOSED USE ☐ Domestic ☐ Industrial ☐ Municipal ☐ DeWater ☐ Irrigation ☐ Test Well (X) Other _____

TYPE OF WORK Owner's number of well (if more than one) _____

☐ New Well ☐ Reconditioned *Method* ☐ Dug ☐ Bored ☐ Driven ☐ Deepened ☐ Cable ☐ Rotary ☐ Jetted

DIMENSIONS Diameter of well ____ inches drilled ____ ft Depth of completed well ____ ft

CONSTRUCTION DETAILS

Casing Installed ☐ Welded ____ Diam from ____ ft to ____ ft

☐ Liner installed ____ Diam from ____ ft to ____ ft

☐ Threaded ____ Diam from ____ ft to ____ ft

Perforations (X) Yes ☐ No

Type of perforator used Knife

SIZE of perfs 3/8 in by 1/2 in and no of perfs 4488 from -5 ft to 187 ft

Screens ☐ Yes (X) No ☐ K Pac Location ____

Manufacturer's Name ____

Type ____ Model No ____

Diam ____ Slot Size ____ from ____ ft to ____ ft

Diam ____ Slot Size ____ from ____ ft to ____ ft

Gravel/Filter packed ☐ Yes (X) No ☐ Size of gravel/sand ____

Materials placed from ____ ft to ____ ft

Surface Seal ☐ Yes (X) No To what depth? ____ ft

Materials used in seal ____

Did any strata contain unusable water? ☐ Yes ☐ No

Type of water? ____ Depth of strata ____

Method of sealing strata off ____

PUMP Manufacturer's Name N/A

Type ____ H P ____

WATER LEVELS Land surface elevation above mean sea level N/A ft

Static level ____ ft below top of well Date ____

Artesian pressure ____ lbs per square inch Date ____

Artesian water is controlled by ____ (cap valve etc)

WELL TESTS Drawdown is amount water level is lowered below static level

Was a pump test made? ☐ Yes (X) No If yes by whom? ____

Yield ____ gal/min with ____ ft drawdown after ____ hrs

Yield ____ gal/min with ____ ft drawdown after ____ hrs

Yield ____ gal/min with ____ ft drawdown after ____ hrs

Recovery data (time taken as zero when pump turned off)(water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test N/A

Bailer test ____ gal/min with ____ ft drawdown after ____ hrs

Airtest ____ gal/min with stem set at ____ ft for ____ hrs

Artesian flow ____ g p m Date ____

Temperature of water ____ Was a chemical analysis made? ☐ Yes (X) No

CONSTRUCTION OR DECOMMISSION PROCEDURE

Formation Describe by color character size of material and structure and the kind and nature of the material in each stratum penetrated with at least one entry for each change of information Indicate all water encountered (USE ADDITIONAL SHEETS IF NECESSARY)

MATERIAL	FROM	TO
Cut casing & Removed	-5	
Perforated from -5 - 187' 4 Rows		
Pressure grout Bentonite from bottom to top		
200 gallons		

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JUL 16 2002

DEPT OF ECOLOGY

Start Date 7-15-02 Completed Date 7-15-02

WELL CONSTRUCTION CERTIFICATION I constructed and/or accept responsibility for construction of this well and its compliance with all Washington well construction standards Materials used and the information reported above are true to my best knowledge and belief

(X) Driller ☐ Engineer ☐ Trainee Name (Print) Michael Colbert Drilling Company Clearview Drilling

Driller/Engineer/Trainee Signature Michael Colbert Address 7723 188th ST SE

Driller or Trainee License No 1890 City State Zip Snohomish WA

Contractor's Registration No Clearvd100BKH Date 7-15-02

If trainee, licensed driller's Signature and License no ____

Ecology an Eq. Opportunity Employer ECY 050-1-20 **W-16**

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

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DEC 13 1993
DEPT. OF ECOLOGY

17

HOLT DRILLING, INC.

Resource Protection Well Report

26/5E/1K

Project Name 19020 176TH AVE

Well Identification # B-1

Drilling Method 4" HSA

Driller Mike Cyrier

License # 2081

Date 11-21-93

County King, NW ¼ SE ¼

Section 1 T. 26 N R. 5E

Start Card 166674

Consulting Firm Hart Crowser

Stick up 2' on Monument Casing

Soil Log

DRK BRN SILTY SA & COBBLES 3'

BRN SA, SO SILT & COBBLES 20'

GRY A SI & F SA 65'

GRY CL SILT & SA 68'

MED-CO SAND

Depth of Components in Feet

2'

73'

78'

78'

Type of Surface Seal CONCRETE

Amount 2'

ID of Riser Pipe 1" SCH 40

Type of Riser Pipe PVC

Amount 75'

Type of Connection Bell & coupling

Type of Backfill around Riser BENTONITE GROUT

Amount 66'

Diameter of Borehole 10"

Screen Size or Type OUTER .020 2" - .010 1" INNER

Type of Filter Material 10-20 CSS

Amount 10'

Remarks:

Signature

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

27/5E/36/Q

WATER WELL REPORT

STATE OF WASHINGTON

W. R. C. Reg.

27/05-36Q

Application No.

Permit No. 20563

18

(1) OWNER: Name CRYSTAL LAKE, INC. Address 24001 Crystal Lake Road - Woodinville, Wa. 98072

(2) LOCATION OF WELL: County Snohomish W½ SW ¼ SE ¼ Sec. 36 T. 27 N., R. 5E W.M.

Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one) ....
New well ☐ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 10" inches.
Drilled 110 ft. Depth of completed well 104 ft.

(6) CONSTRUCTION DETAILS:

Casing installed: 10" Diam. from .... ft. to .... ft.
Threaded ☒ ......" Diam. from .... ft. to .... ft.
Welded ☐ ......" Diam. from .... ft. to .... ft.

Perforations: Yes ☐ No ☐
Type of perforator used
SIZE of perforations .... in. by .... in.
.... perforations from .... ft. to .... ft.
.... perforations from .... ft. to .... ft.
.... perforations from .... ft. to .... ft.

Screens: Yes ☐ No ☐
Manufacturer's Name
Type .... Model No.
Diam. .... Slot size .... from .... ft. to .... ft.
Diam. .... Slot size .... from .... ft. to .... ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from .... ft. to .... ft.

Surface seal: Yes ☐ No ☐ To what depth? .... ft.
Material used in seal
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? .... Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name
Type: .... H.P.

(8) WATER LEVELS: Land-surface elevation above mean sea level APX 425 ft.
Static level 15' ft. below top of well Date
Artesian pressure .... lbs. per square inch Date
Artesian water is controlled by NONE (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test .... gal./min. with .... ft. drawdown after .... hrs.
Artesian flow .... g.p.m. Date
Temperature of water .... Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG:

Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO

Work started .... 19....... Completed .... 19.......

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME .... (Person, firm, or corporation) (Type or print)

Address

[Signed] .... (Well Driller)

License No. .... Date 1928

(USE ADDITIONAL SHEETS IF NECESSARY)

S. F. No. 7356—OS—(Rev. 4-71).

W-18

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. .....
Permit No. 19

(1) **OWNER:** Name F.W. RICHARDSON Address 20103-17TH AVE NE WOODINVILLE

(2) **LOCATION OF WELL:** County KING — NW¼ NE¼ Sec. 1 T. 26 N., R. 5E W.M.

Bearing and distance from section or subdivision corner

(3) **PROPOSED USE:** Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) **TYPE OF WORK:** Owner's number of well (if more than one) ....
New well ☐ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☒ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) **DIMENSIONS:** Diameter of well 6" inches.
Drilled ..... ft. Depth of completed well ..... ft.

(6) **CONSTRUCTION DETAILS:**
Casing installed: 6" Diam. from 0 ft. to 65 ft.
Threaded ☐ ..." Diam. from ... ft. to ... ft.
Welded ☒ ..." Diam. from ... ft. to ... ft.

Perforations: Yes ☐ No ☒
Type of perforator used .....
SIZE of perforations ... in. by ... in.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.
... perforations from ... ft. to ... ft.

Screens: Yes ☒ No ☐
Manufacturer's Name .....
Type ..... Model No. .....
Diam. ... Slot size ... from ... ft. to ... ft.
Diam. ... Slot size ... from ... ft. to ... ft.

Gravel packed: Yes ☐ No ☐ Size of gravel: .....
Gravel placed from ... ft. to ... ft.

Surface seal: Yes ☐ No ☒ To what depth? ... ft.
Material used in seal .....
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? ... Depth of strata .....
Method of sealing strata off .....

(7) **PUMP:** Manufacturer's Name DEMING
Type: JET H.P. 1/2

(8) **WATER LEVELS:** Land-surface elevation above mean sea level .... ft.
Static level 0 ft. below top of well Date 1958
Artesian pressure ... lbs. per square inch Date .....
Artesian water is controlled by ... (Cap, valve, etc.)

(9) **WELL TESTS:** Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☒ No ☐ If yes, by whom? E.E. AXELSEN
Yield: 8 gal./min. with 20 ft. drawdown after 2 hours
" " " " "
" " " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test .....
Bailer test 12 gal./min. with ... ft. drawdown after 1 hrs.
Artesian flow .25 g.p.m. Date 1958
Temperature of water ... Was a chemical analysis made? Yes ☐ No ☐

(10) **WELL LOG:**
Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
BRN SANDY LOAM	0	2
BRN TILL	2	10
GREY TILL	10	35
BRN SILTY SAND W/ACC GVL	35	60

MAY 15 1980

Work started ..., 19... Completed ..., 1958

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME AXELSEN DRILLING
(Person, firm, or corporation) (Type or print)

Address 18802-92 NE. BOTHELL WA 98011

[Signed] E. Axelsen
(Well Driller)

License No. 0008 Date 8 AUG, 1978

(USE ADDITIONAL SHEETS IF NECESSARY)

S. F. No. 7356—OS—(Rev. 4-71).

W-19

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

WATER WELL REPORT
STATE OF WASHINGTON

Application No. 26/05-03 B
Permit No. 20*

(1) **OWNER:** Name Mavey Drenkel Address 20014-144th N.E. Woodinville 98027

(2) **LOCATION OF WELL:** County King NW¼-NW¼-SW¼ Govt Lot 1 ¼ Sec. 3 T. 26 N., R. 5E W.M.
Bearing and distance from section or subdivision corner 150'SO and 60'W of N.E. corner (NW¼; NE¼ Sec 3

(3) **PROPOSED USE:** Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) **TYPE OF WORK:** Owner's number of well (if more than one)
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☐ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) **DIMENSIONS:** Diameter of well 6 inches.
Drilled 97'6" ft. Depth of completed well 97'6" ft.

(6) **CONSTRUCTION DETAILS:**
Casing installed: 6 " Diam. from ft. to 90'6 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☒ " Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

Screens: Yes ☒ No ☐
Manufacturer's Name Johnson
Type STAINLESS Model No.
Diam. 6 Slot size 14 from 90 ft. to 95 ft.
Diam. Slot size Blank from 95 ft. to 97 ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? Depth of strata
Method of sealing strata off

(7) **PUMP:** Manufacturer's Name STA-Rite
Type: Submersible H.P. 3/4

(8) **WATER LEVELS:** Land-surface elevation above mean sea level ft.
Static level 75'6" ft. below top of well Date
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) **WELL TESTS:** Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☒ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test
Bailer test 10 gal./min. with 15 ft. drawdown after 2 hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☒

(10) **WELL LOG:**
Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.

MATERIAL	FROM	TO
Soil sand and gravel		12
Blue Clay w/Large Aggregate	12	19
Blue Clay w/Fine Aggregate	19	26
grey sandy clay	26	57
yellow clay w/sand, small gravels	57	87
Sand and gravel w/water	87	95
Sandy clay	95	97

Work started 5/10/77, 19 Completed 6/14, 19 77

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Ralph Medlen Well Drilling
(Person, firm, or corporation) (Type or print)
Address 417 N. 87th Seattle 98103
[Signed] Ralph Medlen
(Well Driller)
License No. 306 Date 6/29, 19 77

(USE ADDITIONAL SHEETS IF NECESSARY)

S. F. No. 7356—OS—(Rev. 4-71).

W-20

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

~ 0.5 miles NE

26-5E-2D

124595

1200

WATER WELL REPORT
STATE OF WASHINGTON

Start Card No. A47522
Unique Well I.D.# ABANDONED NON
Water Right Permit No.

(1) OWNER: JIM HOFLIN — ADDRESS: 14816 NE 192nd ST, Woodinvillle 98072

(2) LOCATION OF WELL: County. KING — NW 1/4 NW 1/4 Sec 02 T 26 N, R 05 WM
(2a) STREET ADDRESS OF WELL (or nearest Address): 14842 NE 192

(3) PROPOSED USE: Domestic / Irrigation / DeWater / Industrial / TEST WELL / Municipal / Other....

(4) TYPE OF WORK: Owner' No of Well if more than one: 1
Abandoned X / New Well..... / Deepened..... / Reconditioned / METHOD Dug... / Cable. / Rotary / Bored. / Driven

(5) DIMENSIONS: Diameter of well 48 inches.
Drilled 0.00 Feet Depth of completed well 0.00 Ft.

(6) CONSTRUCTION DETAILS:
Casing Installed: 48 Diam From +.5 Ft To 3.5 Ft
Welded Diam From Ft To Ft
Liner Inst X 36 Diam From 3.5 Ft To 23.66 Ft
Threaded

Perforations: NO
Types of perforator used
Size of perforations Inches, by Inches
Perforations from ft to
Perforations from ft to
Perforations from ft to

Screens: NO
Manufacturer's Name:
Type: Model No.
Diam Slot size From Ft To Ft
Diam Slot size From Ft To Ft

Gravel packed: NO Size of gravel.
Gravel placed from: Ft To. Ft

Surface seal: NO To What Depth?: Ft
Material used in seal
Did any strata contain unusable water?:
Type of water: Depth of strata: Ft
Method of sealing strata off:

(7) PUMP: Manufacturer's Name:
Type. H.P.

(8) WATER LEVELS? Above mean sea level
Static Level 11.5 Ft. below top of well Date: 10/15/02
Artesian pressure Lbs. per square inch Date: / /
Artesian water is controlled by:

(9) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made?. NO If yes, by whom?:
Yield. Gal/min. with Ft drawdown after Hrs.
Yield: Gal/min. with Ft drawdown after Hrs.
Yield: Gal/min. with Ft drawdown after Hrs.
RECOVERY DATA
Time Water Level Time Water Level Time Water Level

Date of test / /
Bailer Test gal/min with ft. drawdown after Hrs
Airtest gal/min with stem set at ft for Hrs
Artesian flow G.P.M. Date / /
Temperature of Water Was a chemical analysis made?:

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION:

Formation: Describe by color, character, size of material and show thickness of aquifiers and the kind of nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
THIS WELL WAS ABANDONED TO THE SPECIFICATIONS LISTED IN THE		
VARIANCE ISSUED 10-30-02		
CERTIFIED MAIL 70012510000208976637		
SEE ATTACHMENT TO THIS REPORT		

RECEIVED
DEC 0 6 2002
DEPT OF ECOLOGY

Work Started 11/18/02 Work Completed 11/18/02

WELL CONSTRUCTOR CERTIFICATION:
I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to the best knowledge and belief.

Name: HIMEBAUGH DRILLING - BOYD HIMEBAUGH

Address: 828 B PORTAGE STREET, ARLINGTON, WA 98223

(Signed) Boyd Himebaugh License No 1877
Contractors Registration No. HIMEBD099CK Date 11/24/02

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

W-21

File Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No. 38527

27/5E/35 P 22

Water Right Permit No. _____

(1) OWNER: Name Todd Fredrickson Address 24333 75th AVE SE Woodinville

(2) LOCATION OF WELL: County Snohomish SW ¼ SE ¼ Sec 35 T. 27 N., R 5 W.M.

(2a) STREET ADDDRESS OF WELL (or nearest address) 24333 75th AVE SE Woodinville

(3) PROPOSED USE: ☑ Domestic ☐ Industrial ☐ Municipal ☐ ☐ Irrigation ☐ Test Well ☐ Other ☐ ☐ DeWater

(4) TYPE OF WORK: Owner's number of well (if more than one) _____
Abandoned ☐ New well ☑ Method: Dug ☐ Bored ☐ Deepened ☐ Cable ☐ Driven ☐ Reconditioned ☐ Rotary ☑ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches. Drilled 156 feet. Depth of completed well 156 ft.

(6) CONSTRUCTION DETAILS:
Casing Installed: 6 " Diam. from 0 ft. to 156 ft. Welded ☑ Liner installed ☐ Threaded ☐
_____ " Diam. from _____ ft. to _____ ft.
_____ " Diam. from _____ ft. to _____ ft.

Perforations: Yes ☐ No ☑
Type of perforator used _____
SIZE of perforations _____ in. by _____ in.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

Screens: Yes ☐ No ☑
Manufacturer's Name _____
Type _____ Model No. _____
Diam. _____ Slot size _____ from _____ ft. to _____ ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes ☐ No ☑ Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes ☑ No ☐ To what depth? 18 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☑
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name Sta-Rite
Type: Sub. H.P. 3/4

(8) WATER LEVELS: Land-surface elevation above mean sea level _____ ft.
Static level 121 ft. below top of well Date 7-9
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☑ If yes, by whom? _____
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.
" " " "
" " " "
Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test _____
Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.
Airtest 20 gal./min. with stem set at 155 ft. for 1 hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water _____ Was a chemical analysis made? Yes ☑ No ☐

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
Top Soil	0	2
Sandy brown clay	2	14
Till gray	14	60
Gravel	60	75
Brown sand w/gravel	75	135
consolidated gravel w/ coarse sand water bearing	135	156

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AUG 08 1991
DEPT. OF ECOLOGY

Work started 7-5 19. Completed 7-9 19 91

WELL CONSTRUCTOR CERTIFICATION:
I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME Anderson Drilling Co. (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)
Address 6310-145th Ave NE C.S.
(Signed) _____ (WELL DRILLER) License No. 1367
Contractor's Registration No. ANDRDC*337DY Date 7-9 19 91

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20 (10/87) 1329 3

W-22

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy

ENTERED

WATER WELL REPORT

STATE OF WASHINGTON

UNIQUE WELL I.D. # ABN505

Water Right Permit No. _____

(1) OWNER: Name JUSTIN HALE Address 2381D 75th AVE SE, WOODINVILLE

(2) LOCATION OF WELL: County SNOHOMISH SW 1/4 SW 1/4 Sec 35 T. 27 N., R. 5 W.M.

(2a) STREET ADDRESS OF WELL (or nearest address) 2381D 75th AVE SE, WOODINVILLE

(3) PROPOSED USE: ☒ Domestic ☐ Industrial ☐ Municipal ☐ ☐ Irrigation ☐ Test Well ☐ Other ☐ ☐ DeWater

(4) TYPE OF WORK: Owner's number of well (if more than one) _____

Abandoned ☐ New well ☒ Method: Dug ☐ Bored ☐ Deepened ☐ Cable ☐ Driven ☐ Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well _____ inches. Drilled 161 feet. Depth of completed well 161 ft.

(6) CONSTRUCTION DETAILS:

Casing Installed: 6" Diam. from +1 ft. to 157 ft.
Welded ☒ _____" Diam. from _____ ft. to _____ ft.
Liner Installed ☐ _____" Diam. from _____ ft. to _____ ft.
Threaded ☐

Perforations: Yes ☐ No ☒
Type of perforator used _____
SIZE of perforations _____ in. by _____ in.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

Screens: Yes ☒ No ☐
Manufacturer's Name JOHNSON
Type STAINLESS STEEL Model No. _____
Diam. 5 Slot size .010 from 156 ft. to 161 ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes ☐ No ☒ Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.
Material used in seal BENTONITE
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name _____
Type: _____ H.P. _____

(8) WATER LEVELS: Land-surface elevation above mean sea level _____ ft.
Static level 135 ft. below top of well Date 8-1-94
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level.
Was a pump test made? Yes ☐ No ☒ If yes, by whom? _____
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test _____
Bailer test _____ gal./min. with _____ ft. drawdown after _____ hrs.
Airtest 5 gal./min. with stem set at 155 ft. for 1 hrs.
Artesian flow _____ g.p.m. Date 8-1-94
Temperature of water 57 Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
SILT	0	8
SILTY CLAY	8	16
SILTY SAND	16	137
SILTY SAND & GRAVEL	137	161

RECEIVED
AUG - 8 1994
DEPT. OF ECOLOGY

Work Started 8-1-94, 19. Completed 8-1-94, 19

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME CASCADE DRILLING (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address P.O. BOX 1184 WOODINVILLE WA.

(Signed) [signature] (WELL DRILLER) License No. 2148

Contractor's Registration No. _____ Date _____, 19

(USE ADDITIONAL SHEETS IF NECESSARY)

ECL 050-1-20 (2/93)

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

W-23

PROJECT NAME: Woodinville Industrial Park
WELL IDENTIFICATION NO. n/a
DRILLING METHOD: ABANDON
DRILLER: F. Lynn Gobler
FIRM: Cascade Drilling, Inc.
SIGNATURE: Lynn Dobler
CONSULTING FIRM: West Cove, LLC
REPRESENTATIVE: Randy Whitman

COUNTY: King
LOCATION: NE 1/4 NE 1/4 Sec 3 Twn 26N R 5E
STREET ADDRESS OF WELL:
19563 - 144th St Woodinville
WATER LEVEL ELEVATION: N/A
GROUND SURFACE ELEVATION: N/A
INSTALLED: 8-18-97
DEVELOPED: N/A

7379

AS-BUILT	WELL DATA	FORMATION DESCRIPTION
	CONCRETE SURFACE SEAL	0 - ft.
	BACKFILL BENTONITE CHIP	ABANDON - ft.
	DEPTH OF BORING 34'0"	- ft.

SCALE: 1" = _____ PAGE _____ OF _____

ECY 050-12 (Rev. 11/99)

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.


1947 Aero-Metric

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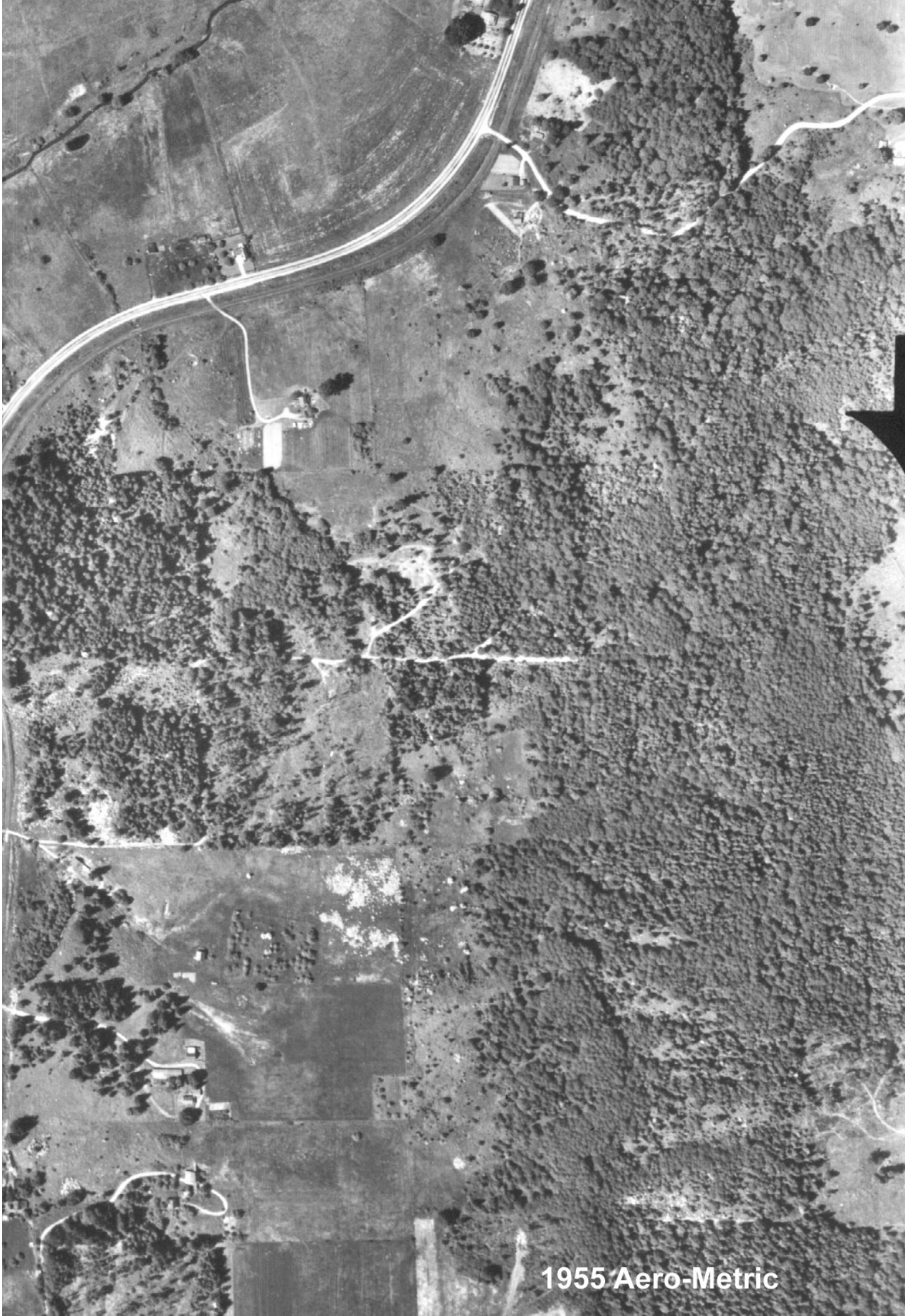
1955 Aero-Metric

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1967 Aero-Metric

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1976 Aero-Metric

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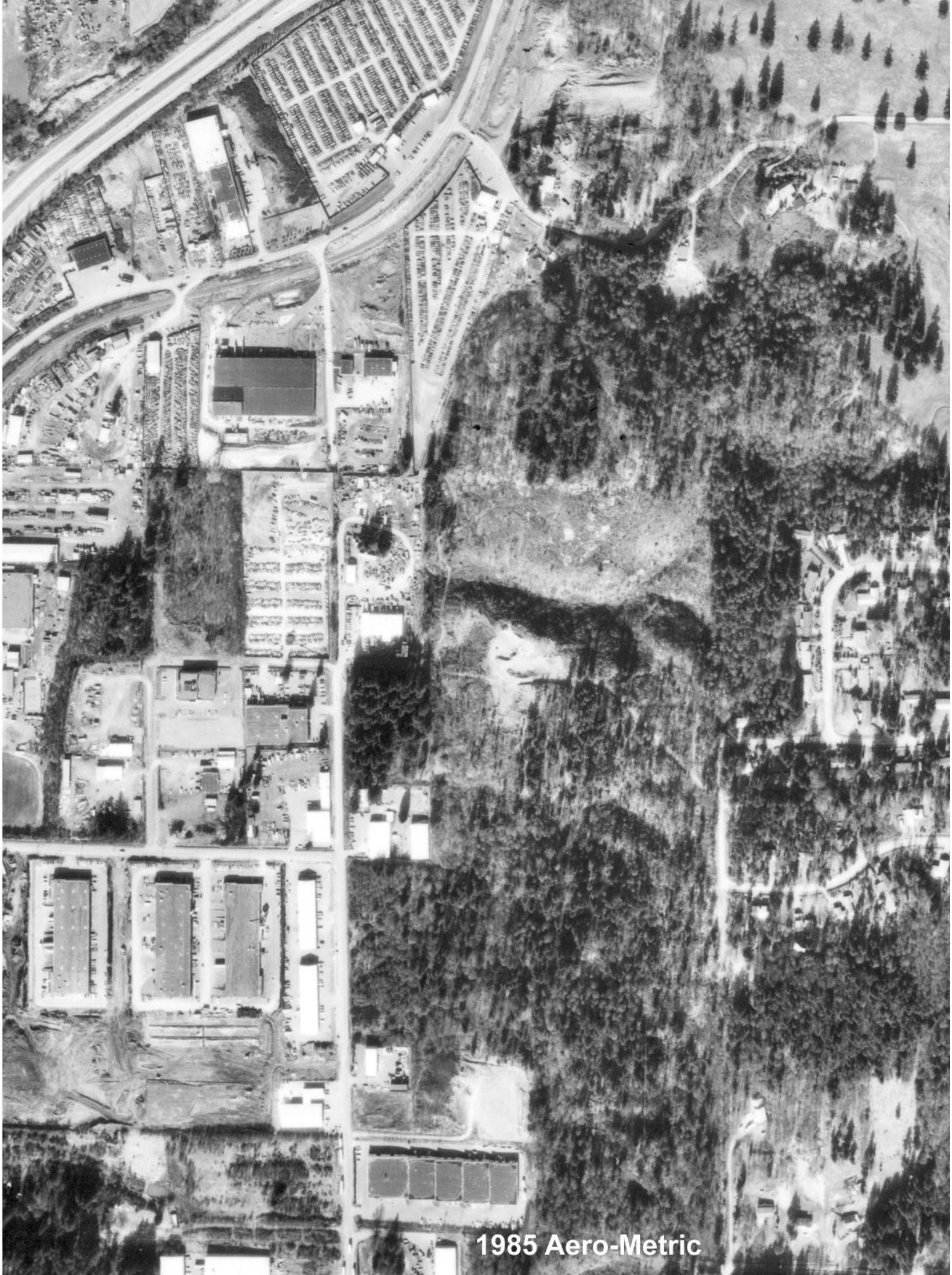
1985 Aero-Metric

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2001 Aero-Metric

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2004 Aero-Metric

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