# **GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM**

#### **TARGET PROPERTY ADDRESS**

10.543-ACRE PARCEL GLEN OAK ROAD NEARBY SITE OREGON CITY, OR 97045

## TARGET PROPERTY COORDINATES

Latitude (North):

45.3197 - 45° 19' 10.92"

122.568 - 122° 34' 4.80"

Longitude (West): 122.568 Universal Tranverse Mercator: Zone 10

UTM X (Meters): UTM Y (Meters): 533859.3 5018339.5

Elevation:

423 ft. above sea level

#### **USGS TOPOGRAPHIC MAP**

Target Property Map:

45122-C5 OREGON CITY, OR

Most Recent Revision:

1985

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

- 1. Groundwater flow direction, and
- 2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

#### **GROUNDWATER FLOW DIRECTION INFORMATION**

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

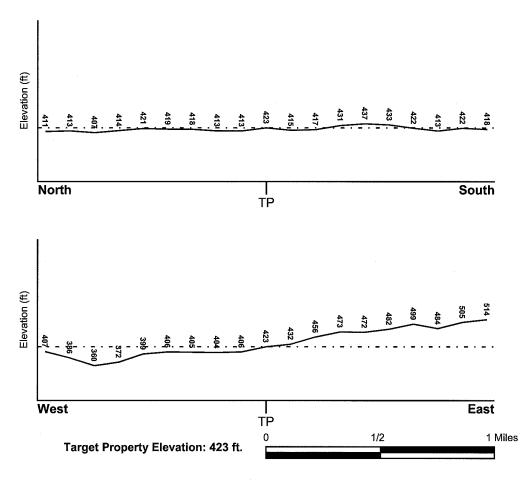
#### **TOPOGRAPHIC INFORMATION**

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

#### TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General West

#### SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

#### HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

**FEMA FLOOD ZONE** 

**FEMA Flood** 

Target Property County CLACKAMAS, OR

**Electronic Data** YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property:

41005C - FEMA DFIRM Flood data

Additional Panels in search area:

Not Reported

NATIONAL WETLAND INVENTORY

**NWI Electronic** 

**NWI Quad at Target Property OREGON CITY** 

**Data Coverage** 

YES - refer to the Overview Map and Detail Map

## HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

#### **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

> LOCATION FROM TP

GENERAL DIRECTION

MAP ID

Not Reported

**GROUNDWATER FLOW** 

## **GROUNDWATER FLOW VELOCITY INFORMATION**

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

#### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### **ROCK STRATIGRAPHIC UNIT**

## **GEOLOGIC AGE IDENTIFICATION**

Era:

Cenozoic

Category: Volcanic Rocks

System: Series:

Tertiary

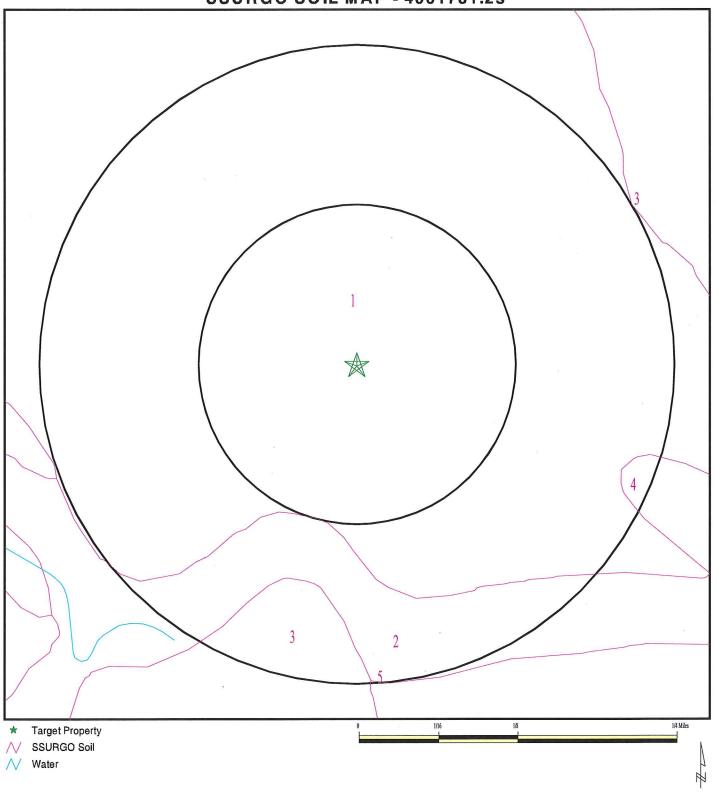
Upper Tertiary andesite

Code:

uTa (decoded above as Era, System & Series)

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

# SSURGO SOIL MAP - 4061781.2s



SITE NAME: 10.543-Acre Parcel
ADDRESS: Glen Oak Road Nearby Site
Oregon City OR 97045
LAT/LONG: 45.3197 / 122.568

CLIENT: GeoDesign Inc.
CONTACT: Andrew Blake
INQUIRY#: 4061781.2s
DATE: September 10, 2014 6:55 pm

## DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name:

Bornstedt

Soil Surface Texture:

silt loam

Hydrologic Group:

Class C - Slow infiltration rates. Soils with layers impeding downward

movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class:

Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min:

> 0 inches

Depth to Watertable Min:

> 76 inches

			Soil Layer	r Information			
	Bou	ındary		Classi	fication	Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 5.1
2	7 inches	33 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 5.1
3	33 inches	70 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 1.4 Min: 0.42	Max: 5.5 Min: 4.5

# **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY**

Soil Map ID: 2

Soil Component Name:

Cottrell

Soil Surface Texture:

silty clay loam

Hydrologic Group:

Class C - Slow infiltration rates. Soils with layers impeding downward

movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class:

Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min:

> 0 inches

Depth to Watertable Min:

> 75 inches

	Soil Layer Information								
	Воц	ındary		Classi	fication	Saturated hydraulic			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec			
1	0 inches	24 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 5.1		
2	24 inches	55 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 4 Min: 1.4	Max: 5.5 Min: 5.1		
3	55 inches	85 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 5.5 Min: 5.1		

Soil Map ID: 3

Soil Component Name:

Jory

Soil Surface Texture:

silty clay loam

Hydrologic Group:

Class B - Moderate infiltration rates. Deep and moderately deep,

moderately well and well drained soils with moderately coarse

textures.

Soil Drainage Class:

Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min:

> 0 inches

Depth to Watertable Min:

> 0 inches

			Soil Layer	Information				
	Boundary		Boundary CI:		Classi	Classification Saturated hydraulic		
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	0011 11000011011	
1	0 inches	12 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6.5 Min: 4.5	
2	12 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 5.5 Min: 4.5	

Soil Map ID: 4

Soil Component Name:

Jory

Soil Surface Texture:

silty clay loam

Hydrologic Group:

Class B - Moderate infiltration rates. Deep and moderately deep,

moderately well and well drained soils with moderately coarse

textures.

Soil Drainage Class:

Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min:

> 0 inches

Depth to Watertable Min:

> 0 inches

	Soil Layer Information								
	Воц	Boundary		Classi	Classification				
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	hydraulic conductivity micro m/sec	OON INGGORION		
1	0 inches	12 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6.5 Min: 4.5		
2	12 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 5.5 Min: 4.5		

Soil Map ID: 5

Soil Component Name:

Jory

Soil Surface Texture:

silty clay loam

Hydrologic Group:

Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse

textures.

Soil Drainage Class:

Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min:

> 0 inches

Depth to Watertable Min:

> 0 inches

	Soil Layer Information								
Boundary				Classi	fication	Saturated hydraulic			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		Soil Reaction (pH)		
1	0 inches	12 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6.5 Min: 4.5		

	Soil Layer Information								
	Boundary			Classification		Saturated hydraulic			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity Soil React	Soil Reaction (pH)		
2	12 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 5.5 Min: 4.5		

# LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

## WELL SEARCH DISTANCE INFORMATION

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SEARCH DISTANCE (miles)

Federal USGS

1.000

Federal FRDS PWS

Nearest PWS within 0.001 miles

State Database

1.000

## FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
2	USGS40000992632	1/4 - 1/2 Mile SSE
A4	USGS40000992650	1/4 - 1/2 Mile East
B6	USGS40000992624	1/2 - 1 Mile WSW
9	USGS40000992684	1/2 - 1 Mile NNW

## FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID WELL ID

LOCATION FROM TP

No PWS System Found

Note: PWS System location is not always the same as well location.

# STATE DATABASE WELL INFORMATION

MAP ID

WELL ID

LOCATION FROM TP

1

ORW400000009212

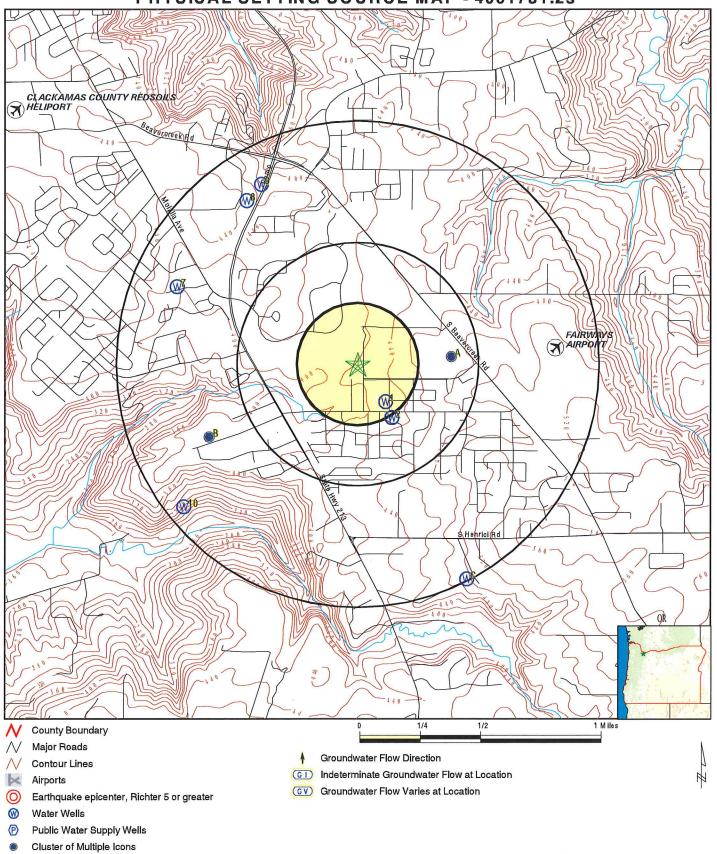
1/8 - 1/4 Mile SE

# **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY**

## STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	FROM TP
A3	ORW400000009249	1/4 - 1/2 Mile East
B5	ORW40000009180	1/2 - 1 Mile WSW
7	ORI40000010584	1/2 - 1 Mile WNW
8	ORW40000009369	1/2 - 1 Mile NW
10	ORI40000010477	1/2 - 1 Mile SW
C11	ORI40000010436	1/2 - 1 Mile SSE
C12	ORI40000010437	1/2 - 1 Mile SSE
C13	ORI40000010438	1/2 - 1 Mile SSE

# PHYSICAL SETTING SOURCE MAP - 4061781.2s



SITE NAME: 10.543-Acre Parcel
ADDRESS: Glen Oak Road Nearby Site
Oregon City OR 97045
LAT/LONG: 45.3197 / 122.568

CLIENT: GeoDesign Inc. CONTACT: Andrew Blake INQUIRY#: 4061781.2s

DATE: September 10, 2014 6:55 pm

Map ID Direction Distance Elevation Database **EDR ID Number OR WELLS** ORW400000009212 1/8 - 1/4 Mile Higher Logid: CLAC 17420 Lstupdate: Not Reported Establby: KARL WOZNIAK Xysource: UNKNOWN USGS Horizerr: 9999 Sourceorg: WILLGW Sourceowrd: Welltag: 0 Sownum: 0 Obswell: 9 Recwell: 9 Obsflagall: Not Reported ORW400000009212 Lsdelev: 430 Site id: SSE **FED USGS** USGS40000992632 1/4 - 1/2 Mile Higher Org. Identifier: **USGS-OR** Formal name: USGS Oregon Water Science Center USGS-451900122335000 Monloc Identifier: Monloc name: 03S/02E-09DCD Well Monloc type: Not Reported Monloc desc: 17090007 Not Reported Huc code: Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Contrib drainagearea units: Not Reported Latitude: 45.3165106 -122.5650899 Not Reported Longitude: Sourcemap scale: Horiz Acc measure: Unknown Horiz Acc measure units: Unknown Horiz Collection method: Interpolated from map Not Reported Horiz coord refsys: NAD83 Vert measure val: Not Reported Vertacc measure val: Not Reported Vert measure units: Vert accmeasure units: Not Reported Not Reported Vertcollection method: Vert coord refsys: Not Reported Countrycode: US Aquifername: Other aquifers Troutdale Formation Formation type: Aquifer type: Not Reported Welldepth: Not Reported Construction date: Not Reported Wellholedepth: Not Reported Not Reported Welldepth units: Wellholedepth units: Not Reported Ground-water levels, Number of Measurements: 0 **OR WELLS** ORW400000009249 East 1/4 - 1/2 Mile Higher CLAC 17312 Not Reported Logid: Lstupdate: Establby: KARL WOZNIAK Xysource: UNKNOWN Horizerr: 9999 Sourceorg: USGS WILLGW Sourceowrd: Welltag: n Sownum: 0 Obswell: Obsflagall: Not Reported Recwell: 9 ORW400000009249 Lsdelev: 465 Site id:

Map ID Direction Distance Elevation

Database

EDR ID Number

East

**FED USGS** 

USGS40000992650

1/4 - 1/2 Mile Higher

Org. Identifier:

**USGS-OR** 

Formal name:

USGS Oregon Water Science Center

Monloc Identifier: Monloc name:

USGS-451913122333201

Monloc type:

03S/02E-09DDA

Well

Monloc desc:

Not Reported

Huc code:

17090007

Not Reported

Drainagearea value: Contrib drainagearea: Not Reported Not Reported

Drainagearea Units:

Contrib drainagearea units: Not Reported

Latitude: Sourcemap scale: 45.3201439 24000

Lonaitude: Horiz Acc measure: -122.5600509

Horiz Acc measure units:

seconds

Horiz Collection method:

Interpolated from map

Horiz coord refsys:

NAD83

Vert measure val: Vertacc measure val: 465 5

Vert measure units: Vert accmeasure units: feet

feet

Vertcollection method:

Interpolated from topographic map

NGVD29

Countrycode:

US

Aquifername: Formation type: Aquifer type:

Vert coord refsys:

Not Reported Not Reported

Not Reported

1005

Construction date: Welldepth units:

19740829 ft

Welldepth: Wellholedepth:

1005

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 0

B5 WSW 1/2 - 1 Mile Lower

**OR WELLS** 

ORW40000009180

Logid: Establby:

**CLAC 17429** KARL WOZNIAK

Lstupdate: Xysource: Sourceorg: Not Reported UNKNOWN

Horizerr: Sourceowrd: 9999

WILLGW

USGS

Welltag:

0 0

Obswell:

Not Reported

Sownum: Recwell: Lsdelev:

9 405 Obsflagall: Site id:

ORW400000009180

WSW 1/2 - 1 Mile Lower

**FED USGS** 

USGS40000992624

Org. Identifier:

**USGS-OR** 

Formal name:

USGS Oregon Water Science Center

Monloc Identifier:

USGS-451856122344601

Monloc name:

03S/02E-17AAA

Monloc type:

Well

Monloc desc:

Not Reported

Huc code: Drainagearea Units: 17090007 Not Reported

Drainagearea value: Contrib drainagearea: Not Reported Not Reported

Longitude:

Contrib drainagearea units: Not Reported -122.5806264

Latitude: Sourcemap scale:

45.3153659 24000

Horiz Acc measure:

Horiz Acc measure units:

seconds

Horiz Collection method:

Horiz coord refsys:

NAD83

Vert measure val:

Vert measure units:

feet

Vertacc measure val:

405 5

Vert accmeasure units: Vertcollection method:

Interpolated from topographic map

Vert coord refsys:

NGVD29

Interpolated from map

US

Aquifername: Formation type:

Not Reported Not Reported

Aguifer type:

Not Reported

173

Construction date: Welldepth units:

19680319 ft

Welldepth: Wellholedepth:

Countrycode:

173

Wellholedepth units:

ft

Ground-water levels, Number of Measurements: 0

WNW 1/2 - 1 Mile Lower

**OR WELLS** 

ORI40000010584

Well inspe: Physical I: Startcard:

45188

Not Reported Not Reported

Inspection: WI county: Startcard1:

CLAC

WI nbr: Well tag n: Property o: Not Reported Not Reported Not Reported

No log: Inspecti 1: Title: Witnesses:

Phone comp:

Distance t:

Drilling m:

Drilling 1: Inspected:

Monitori 1:

Well locke:

Water in v:

City:

Zip:

Special st: Inspecti 2: Name owner:

Work new:

Work conve:

Work aband:

Work other:

Not Reported

NICHOLS, ROGER Street: Not Reported

State: Not Reported Phone home: Not Reported Gps on wel: Not Reported

Bearing to: Use of wel: Not Reported Rough log:

Well tag r: Not Reported Monitoring: Not Reported Protective: Consultant:

Seal test: Not Reported Casing dia: Not Reported Csg gauge: Not Reported

Dedicated: Access p 1: Not Reported Measuring1: Depth be 1: Not Reported Tape missi: Not Reported Not Reported Water leve: Cascading:

Pump make: Not Reported Flowmeter: Not Reported Flowmete 1: Not Reported Associated: Not Reported Not Reported Deficiency: Inspecti 3:

Not Reported -1 0

Not Reported

Samples ta: Csg above: Borehole d: Access por: Measuring: Depth belo: Tape hold: Tape cut: Water le 1:

Pump type: Pump hp: Flowmeter1: Flowmete 2: Nbr of hou: Work deepe:

Work alter:

Work exist:

Drill rota:

14-AUG-07

Not Reported

Not Reported Not Reported

Not Reported

Not Reported Not Reported Not Reported Not Reported Not Reported

Not Reported

0 0 0

> 0 Not Reported Not Reported

Not Reported Not Reported Not Reported Not Reported

Not Reported Not Reported Not Reported Not Reported Not Reported Not Reported

0 0

0

0

Drill ro 1:	0	Drill cabl:	0
Drill ca 1:	0	Drill reve:	0
Drill re 1:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	Not Reported	Use domest:	0
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	0
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0
Use recove:	0	Use other:	Not Reported
	0	Conductivi:	•
Bentonite :		Conductivi:	Not Reported
Conducti 1:	Not Reported		
Measuremen:	Not Reported	Daniel de Rec	Not December
Well tag 1:	Not Reported	Bonded lic:	Not Reported
Unbonded I:	Not Reported	Bonded dri:	Not Reported
Unbonded d:	Not Reported	County cod:	CLAC
Tax lot:	2500		
Township:	3		
Township c:	S		
Range:	2		
Range char:	E		
Sctn:	8		
Qtr40:	Not Reported	Qtr160:	Not Reported
Latitude d:	45.32431		
Longitude :	-122.58337		
Gps horizo:	Not Reported		
Year const:	2007		
Date const:	Not Reported	Date con 1:	Not Reported
Deficienci:	U	Previous i:	0
Inspected1:	JWJ	Wm region:	NW
Well tag a:	BANDED TO CASING		
Well tag 2:	Not Reported	Depth:	Not Reported
Static wat:	Not Reported	Status of :	CMP
Location r:	Not Reported		
Site visit:	0	Type of lo:	W
Casing cap:	SS	Pictures t:	0
Street of :	S LAZY CREEK LANE OREGO!	N CITY OR 97045	
Street of1:	NEAREST 13703 S LAZY CREE	K LN., OREGON CITY,OR 97	045
Last updt :	17-DEC-07	Last updt1:	jefferjw
Rec creati:	01-JUN-09	Rec crea 1:	OWRD\migrate
Newlat:	45.32431		
Newlong:	-122.58337		
Site id:	ORI40000010584		

8 NW 1/2 - 1 Mile Higher			OR WELLS	ORW40000009369
Logid:	CLAC 17251	Lstupdate:	Not Reported	
Establby:	KARL WOZNIAK	Xysource:	UNKNOWN	
Horizerr:	9999	Sourceorg:	USGS	
Sourceowrd:	WILLGW			
Welltag:	0			
Sownum:	0	Obswell:	9	
Recwell:	9	Obsflagall:	Not Reported	
Lsdelev:	415	Site id:	ORW40000009369	)

Map ID Direction				
Distance				
Elevation			Database	EDR ID Number
9 NNW 1/2 - 1 Mile Lower			FED USGS	USGS40000992684
	USOS OB			
Org. Identifier:	USGS-OR USGS Oregon Water Science C	contor		
Formal name: Monloc Identifier:	USGS-451950122343000	enter		
Monloc identifier.  Monloc name:	03S/02E-09BBA		,	
Monloc type:	Well			
Monloc type.  Monloc desc:	Not Reported			
Huc code:	17090007	Drainagearea value:	Not Reported	
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported	
Contrib drainagearea units:	·	Latitude:	45.3303991	
Longitude:	-122.5762015	Sourcemap scale:	Not Reported	
Horiz Acc measure:	Unknown	Horiz Acc measure units:	Unknown	
Horiz Collection method:	Interpolated from map	Tionz / too measure units.	Olikisowii	
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported	
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported	
Vert accmeasure units:	Not Reported	vortado medadro var.	Not reported	
Vertcollection method:	Not Reported			
Vert coord refsys:	Not Reported	Countrycode:	US	
Aguifername:	Other aguifers	Courti yoodo.	00	
Formation type:	Troutdale Formation			
Aguifer type:	Not Reported			
Construction date:	Not Reported	Welldepth:	Not Reported	1
Welldepth units:	Not Reported	Wellholedepth:	Not Reported	
Wellholedepth units:	Not Reported	Tomologopun.	riot rioportou	
Ground-water levels, Numb	er of Measurements: 0			
10				
św			OR WELLS	ORI400000010477
1/2 - 1 Mile				
Lower				
Well inspe:	47873			
Physical I:	Not Reported	Inspection:	30-APR-09	
Startcard :	Not Reported	WI county:	WASH	
WI nbr:	Not Reported	Startcard1:	Not Reported	
Well tag n:	Not Reported	No log:	0	
Property o:	Not Reported	Inspecti 1:	ATT	
Special st:	0	Title:	WIN	
Inspecti 2:	ROC	Witnesses:	Not Reported	
Name owner:	CITY OF HILLSBORO			
Street:	150 E MAIN ST 5TH FLOOR	City:	HILLSBORO	
State:	OR	Zip:	971234028	
Phone home:	Not Reported	Phone comp:	5036816219	
Gps on wel:	-1	Distance t:	Not Reported	
Bearing to:	Not Reported	Drilling m:	Not Reported	
Use of wel:	Not Reported	Drilling 1:	0	
Rough log:	0	Inspected :	Not Reported	
Well tag r:	Not Reported			
Monitoring:	Not Reported	Monitori 1:	0	
Protective:	0	Well locke:	0	
Consultant:	0	Water in v:	0	

Cool took .	Not Departed	Commiss to	0
Seal test :	Not Reported	Samples ta:	0
Casing dia:	Not Reported	Csg above :	Not Reported
Csg gauge:	Not Reported	Borehole d:	Not Reported
Dedicated :	0	Access por:	0
Access p 1:	Not Reported	Measuring :	Not Reported
Measuring1:	0	Depth belo:	Not Reported
Depth be 1:	Not Reported	Tape hold:	Not Reported
Tape missi:	Not Reported	Tape cut:	Not Reported
Water leve:	Not Reported	Water le 1:	Not Reported
Cascading :	0	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter:	Not Reported	Flowmeter1:	Not Reported
Flowmete 1:	Not Reported	Flowmete 2:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	Not Reported		•
Inspecti 3:	DID NOT LOCATE MAY BE IN F	ROAD	
Work new:	0	Work deepe:	0
Work conve:	0	Work alter:	-1
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	0
Drill ro 1:	0	Drill cabl:	0
Drill ca 1:	0	Drill reve:	0
Drill re 1:	0	Drill auge:	0
		· ·	0
Drill push:	0	Drill hand:	
Drill holl:	0	Drill soni:	0
Drill othe:	Not Reported	Use domest:	0
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	-1
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0
Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti 1:	Not Reported		
Measuremen:	Not Reported		
Well tag 1:	Not Reported	Bonded lic:	Not Reported
Unbonded I:	Not Reported	Bonded dri:	Not Reported
Unbonded d:	Not Reported	County cod:	WASH
Tax lot:	8500	•	
Township:	1		
Township c:	N	•	
Range:	2		
Range char:	W		
Sctn:	31		
Qtr40:	SE	Qtr160:	SE
Latitude d:	45.3112	Qui 100.	OL
Longitude :	122.5828		
Gps horizo:	Not Reported		
Year const:	0 Not Bereited	Determined.	Net Devented
Date const:	Not Reported	Date con 1:	Not Reported
Deficienci:	U	Previous i:	0
Inspected1:	LR	Wm region:	NW
Well tag a:	Not Reported		
Well tag 2:	Not Reported	Depth:	Not Reported
Static wat:	Not Reported	Status of :	Not Reported
Location r:	Not Reported		
Site visit:	0	Type of lo:	Not Reported
Casing cap:	Not Reported	Pictures t:	0
Street of :	971 SE BASELINE ST		
Street of1:	Not Reported		
	•	*	

Last updt : Rec creati: 18-JUN-09 18-JUN-09 Last updt1: Rec crea 1: ramseyll ramseyll

Newlat: Newlong: 45.3112 -122.5828

Site id: ORI40000010477

C11 SSE 1/2 - 1 Mile Higher

**OR WELLS** 

Not Reported

ORI400000010436

Well inspe: 22832 Not Reported Inspection: 10-JUL-00 Physical I: Startcard: Not Reported WI county: Not Reported Not Reported Startcard1: Not Reported WI nbr: Well tag n: Not Reported No log: Property o: Not Reported Inspecti 1: Not Reported Not Reported Special st: Title: Not Reported Inspecti 2: Not Reported Witnesses:

Name owner: BRIAN OOTEN; 14960 S HENRICI RD, OREGON CITY; BESIDE MAINTENANCE BLDG

Inspected:

Not Reported Street: Not Reported City: Not Reported Not Reported State: Zip: Phone home: Not Reported Phone comp: Not Reported Gps on wel: Not Reported Distance t: Bearing to: Not Reported Drilling m: Not Reported Not Reported Drilling 1: Use of wel:

Rough log: 0
Well tag r: Not Reported

 Monitoring:
 Not Reported
 Monitori 1:
 0

 Protective:
 0
 Well locke:
 0

 Consultant:
 0
 Water in v:
 0

 Seal test:
 Not Reported
 Samples ta:
 0

Casing dia:Not ReportedCsg above :Not ReportedCsg gauge:Not ReportedBorehole d:Not ReportedDedicated :0Access por:0Access p 1:Not ReportedMeasuring :Not Reported

Measuring1: Depth belo: Not Reported Not Reported Tape hold: Not Reported Depth be 1: Tape missi: Not Reported Tape cut: Not Reported Not Reported Water leve: Not Reported Water le 1: Cascading: Pump type: Not Reported Not Reported Pump make: Not Reported Pump hp: Not Reported Not Reported Flowmeter1: Flowmeter:

Flowmete 1: Not Reported Flowmete 2: Not Reported Associated: Not Reported Nbr of hou: Not Reported

Deficiency: Not Reported Inspecti 3: Not Reported

Work deepe: 0 Work new: 0 Work alter: 0 Work conve: Work aband: Work exist: 0 0 Work other: Not Reported Drill rota: 0 Drill ro 1: 0 Drill cabl: 0 Drill ca 1: 0 Drill reve:

0 0 Drill re 1: Drill auge: Drill push: 0 Drill hand: 0 0 Drill holl: 0 Drill soni: 0 Not Reported Use domest: Drill othe: Use commun: 0 Use irriga: 0 0 Use livest: 0 Use indust:

Use dewate:0Use monito:0Use therma:0Use inject:0

Use piezom:	0	Use observ:	0
Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti 1:	Not Reported		
Measuremen:	Not Reported		
Well tag 1:	Not Reported	Bonded lic:	Not Reported
Unbonded I:	Not Reported	Bonded dri:	Not Reported
Unbonded d:	Not Reported	County cod:	CLAC
Tax lot:	Not Reported		
Township:	3		
Township c:	S		
Range:	2		
Range char:	E		
Sctn:	15		
Qtr40:	NW	Qtr160:	SW
Latitude d:	45.3069		
Longitude :	122.55873		
Gps horizo:	Not Reported		
Year const:	2000		
Date const:	Not Reported	Date con 1:	Not Reported
Deficienci:	N	Previous i:	0
Inspected1:	KRB	Wm region:	NW
Well tag a:	BANDED TO CEMENT		
Well tag 2:	Not Reported	Depth:	Not Reported
Static wat:	Not Reported	Status of :	Not Reported
Location r:	Not Reported		
Site visit:	0	Type of lo:	Not Reported
Casing cap:	Not Reported	Pictures t:	0
Street of :	Not Reported	~	
Street of1:	Not Reported		
Last updt :	01-JAN-00	Last updt1:	byrdkr
Rec creati:	01-JUN-09	Rec crea 1:	OWRD\migrate
Newlat:	45.3069		
Newlong:	-122.55873		
Site id:	ORI40000010436		

C12 SSE 1/2 - 1 Mile Higher			OR WELLS	ORI40000001
Well inspe:	24633			
Physical I:	Not Reported	Inspection:	15-APR-02	
Startcard :	Not Reported	WI county:	Not Reported	
WI nbr:	Not Reported	Startcard1:	Not Reported	
Well tag n:	Not Reported	No log:	0	
Property o:	Not Reported	Inspecti 1:	Not Reported	
Special st:	0	Title:	Not Reported	

Inspecti 2: Not Reported Witnesses: Not Reported BRIAN OOTEN; 14960 S HENRICI RD, OREGON CITY; BESIDE MAINTENANCE BLDG Name owner: Not Reported Not Reported City: Street: State: Not Reported Zip: Not Reported

Phone comp: Not Reported Not Reported Phone home: Distance t: Not Reported Gps on wel: Drilling m: Not Reported Bearing to: Not Reported Not Reported Drilling 1: Use of wel:

Inspected: Not Reported Rough log: 0

Well tag r: Not Reported 0 Not Reported Monitori 1: Monitoring: Protective: 0 Well locke: 0 Water in v: 0 Consultant: 0

ORI40000010437

Seal test :	Not Reported	Samples ta:	0
Casing dia:	Not Reported	Csg above :	Not Reported
•	•	Borehole d:	· ·
Csg gauge: Dedicated :	Not Reported		Not Reported
	0 Not Demanded	Access por:	0 Nat Danastad
Access p 1:	Not Reported	Measuring :	Not Reported
Measuring1:	0 Not Bounded	Depth belo:	Not Reported
Depth be 1:	Not Reported	Tape hold:	Not Reported
Tape missi:	Not Reported	Tape cut:	Not Reported
Water leve:	Not Reported	Water le 1:	Not Reported
Cascading :	0	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmeter1:	Not Reported
Flowmete 1:	Not Reported	Flowmete 2:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	Not Reported		
Inspecti 3:	STILL IN PLACE; VARIANCE W.	AS DENIED	
Work new:	-1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0 .	Work exist:	0
Work other:	Not Reported	Drill rota:	0
Drill ro 1:	0	Drill cabl:	0
Drill ca 1:	0	Drill reve:	0
Drill re 1:	0	Drill auge:	0
	0	Drill hand:	0
Drill push:			
Drill holl:	0 Nat Barantad	Drill soni:	0
Drill othe:	Not Reported	Use domest:	0
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	0
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0
Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti 1:	Not Reported		
Measuremen:	Not Reported		
Well tag 1:	Not Reported	Bonded lic:	Not Reported
Unbonded I:	Not Reported	Bonded dri:	Not Reported
Unbonded d:	Not Reported	County cod:	CLAC
Tax lot:	802	,	
Township:	4		
Township c:	S		
Range:	2		
Range char:	E		
Sctn:	16		
Qtr40:	NE	Qtr160:	SE
		Qii 100.	3L
Latitude d:	45.3069 433.55873		
Longitude :	122.55873		
Gps horizo:	Not Reported		
Year const:	2000		
Date const:	Not Reported	Date con 1:	Not Reported
Deficienci:	N	Previous i:	-1
Inspected1:	KRB	Wm region:	NW
Well tag a:	BANDED TO CEMENT		
Well tag 2:	Not Reported	Depth:	Not Reported
Static wat:	Not Reported	Status of :	Not Reported
Location r:	Not Reported		
Site visit:	0	Type of lo:	Not Reported
Casing cap:	Not Reported	Pictures t:	0
Street of :	Not Reported		
Street of1:	Not Reported		
	<b>-</b>		

Last updt : Rec creati: 01-JAN-00 01-JUN-09 Last updt1: Rec crea 1: byrdkr OWRD\migrate

Newlat: Newlong: Site id: 45.3069 -122.55873 ORI400000010437

Not Reported

C13 SSE 1/2 - 1 Mile Higher

**OR WELLS** 

ORI40000010438

Well inspe: 27587 Inspection: 11-JUN-02 Physical I: Not Reported Startcard: Not Reported WI county: Not Reported WI nbr: Not Reported Startcard1: Not Reported Well tag n: Not Reported No log: Property o: Not Reported Inspecti 1: Not Reported Not Reported Special st: Title:

Inspecti 2: Not Reported Witnesses: Not Reported
Name owner: BRIAN OOTEN; 14960 S HENRICI RD, OREGON CITY; BESIDE MAINTENANCE BLDG

Not Reported Street: Not Reported City: Not Reported Zip: Not Reported State: Phone home: Not Reported Phone comp: Not Reported Gps on wel: Not Reported Distance t: Bearing to: Not Reported Drilling m: Not Reported Not Reported Drilling 1: Use of wel:

Inspected:

Rough log: 0
Well tag r: Not Reported

 Worklag I.
 Not Reported
 Monitori 1:
 0

 Monitoring:
 Not Reported
 Well locke:
 0

 Consultant:
 0
 Water in v:
 0

 Seal test:
 Not Reported
 Samples ta:
 0

Casing dia:Not ReportedCsg above :Not ReportedCsg gauge:Not ReportedBorehole d:Not ReportedDedicated :0Access por:0

Not Reported Measuring: Not Reported Access p 1: Measuring1: Depth belo: Not Reported Depth be 1: Not Reported Tape hold: Not Reported Tape missi: Not Reported Tape cut: Not Reported Not Reported Water leve: Not Reported Water le 1: Cascading: Pump type: Not Reported Not Reported Pump make: Not Reported Pump hp:

Flowmeter: Not Reported Flowmeter1: Not Reported Flowmete 1: Not Reported Flowmete 2: Not Reported Associated: Not Reported Nor of hou: Not Reported Position with the Position of the Indianated Position with the Position of the Indianated Position with the Indianated Position of the Indianated In

Deficiency: Not Reported

Inspecti 3: STILL IN PLACE; VARIANCE WAS DENIED; OWNER SAID WILL BE DONE 6/26

Work deepe: Work new: 0 0 Work alter: 0 Work conve: Work aband: Work exist: 0 0 Work other: Not Reported Drill rota: Drill ro 1: 0 Drill cabl: 0 Drill ca 1: 0 Drill reve: 0 Drill auge: 0 Drill re 1: 0 Drill push: 0 Drill hand: 0 0 Drill holl: 0 Drill soni: Not Reported Use domest: 0 Drill othe: Use commun: 0 Use irriga: 0 Use livest: 0 Use indust: 0 0 Use monito: 0 Use dewate: Use therma: Use inject: 0

Use piezom: 0 Use observ: 0 Not Reported Use recove: Use other: Bentonite: 0 Conductivi: Not Reported Conducti 1: Not Reported Not Reported Measuremen: Well tag 1: Not Reported Bonded lic: Not Reported Not Reported Bonded dri: Not Reported Unbonded I: CLAC Unbonded d: Not Reported County cod: Tax lot: 802 3 Township: s Township c: 2 Range: Ε Range char: 15 Sctn: Qtr160: SW Qtr40: NW 45.3069 Latitude d: Longitude: 122.55873 Not Reported Gps horizo: Year const: 2000 Date const: Not Reported Date con 1: Not Reported Deficienci: Previous i: KRB NW Inspected1: Wm region: BANDED TO CEMENT Well tag a: Well tag 2: Not Reported Depth: Not Reported Static wat: Not Reported Status of: Not Reported Location r: Not Reported Site visit: Type of lo: Not Reported Casing cap: Not Reported Pictures t: Not Reported Street of: Not Reported Street of1: Last updt: 01-JAN-00 Last updt1: byrdkr OWRD\migrate 01-JUN-09 Rec crea 1: Rec creati: 45.3069 Newlat: Newlong: -122.55873

ORI400000010438

Site id:

#### AREA RADON INFORMATION

State Database: OR Radon

Radon Test Results

Zipcode	Num Tests	Maximum	Minimum	Average	# > 4 pCi/L
97045	26	6.4	0.5	2.2	2

Federal EPA Radon Zone for CLACKAMAS County: 3

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.

: Zone 3 indoor average level < 2 pCi/L.

Not Reported

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### **TOPOGRAPHIC INFORMATION**

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

#### HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory Data Source: Oregon Geospatial Enterprise Office

Telephone: 503-378-2166

#### HYDROGEOLOGIC INFORMATION

AQUIFLOWR Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

#### **GEOLOGIC INFORMATION**

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after

August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

PWS ENF: Public Water Systems Violation and Enforcement Data

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Data

Source: Department of Water Resources

Telephone: 503-986-0843

#### OTHER STATE DATABASE INFORMATION

Oil and Gas Well Locations

Source: Department of Geology and Mineral Industries

Telephone: 971-673-1540

A listing of oil and gas well locations in the state.

## RADON

State Database: OR Radon Source: Oregon Health Services

Telephone: 503-731-4272 Radon Levels in Orgeon

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency

(USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at

private sources such as universities and research institutions.

**EPA Radon Zones** 

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor

radon levels.

OTHER

Airport Landing Facilities: P

Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

# STREET AND ADDRESS INFORMATION

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