

GTILO – Geothermal Information Layer for Oregon

HotSpringURI: <http://www.oregongeology.org/gtilo/ngds/sprg/UM-007.pdf>

Spreadsheet: Oregon_HotSpringFeature_metadata_1_13_11.xls

This URI last updated: 2012-10-02 00:00:00

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IDENTIFIER *See field key on last page for data field definitions.*

HotSpringURI: <http://www.oregongeology.org/gtilo/ngds/sprg/UM-007.pdf>

Name: Lehman Springs

Label: Natural spring that emits geothermally heated groundwater in Oregon

OtherName:

OtherIdentifier: UM-007

Source: Black, G.L., 1994, Low-temperature geothermal database for Oregon: Oregon Department of Geology and Mineral Industries Open-File Report O-94-08, 178 p., 5 location maps.

SourceURI:

FeatureType: hot

LandLeaseOwner:

OtherLocationName:

REF_ID BlacGL1994a

SPATIAL

TOPO24K Lehman Springs

TOPO100K La Grande

County: Umatilla

State: Oregon

PLSS_Meridians: Willamette

Township: 005S

Range: 033E

Section: 12.0

SectionPart: ADB

Parcel:

UTM_E:

UTM_N:

UTMDatumZone:

LatDegree: 45.1508839999999

LongDegree: -118.66035

SRS: EPSG:4326

LocationUncertainty-Statement: The method of digitization of thermal spring locations involved heads-up digitization from U.S. Geological Survey Digital Raster (DRG) Image of 1:24,000-scale quadrangles on the computer screen by using a computer mouse to scribe the feature. The DRG also acted as a marked base to guide and adjust the position of a previously scribed thermal spring feature based on thermal springs depicted on the DRG. The accuracy of this data depends on a number of different types of errors: geodetic, machine, cartographic, and random errors. Not least of which depends on the level of detail of the source material and the interpretation procedures for capturing that source.

CHARACTERISTICS

ObservationURI: <http://www.oregongeology.org/gtilo/ngds/sprg/UM-007.pdf>

Temperature: 141.8

TemperatureUnits: Fahrenheit

Temp spot measurement
Measurement
Procedure:

Temp correctness date is time of publication
Measurement by default
DateTime:

Flow:

FlowUnits:

FlowMeasurement
Procedure:

FlowMeasurement
DateTime:

Measurement-
Source:

FlowContinuity:

Classification: 0

RelatedWater Chemistry: ph, Na, K, Ca, Mg, Fe, Al, SiO₂, B, Li, HCO₃, SO₄, Cl, F

HEAT Lehman Springs

CLASS sprhi

REFERENCE

DataEntrySource: Clark Niewendorp, 2006 (update, 2010); Industrial Minerals Geologist, Oregon Department of Geology and Mineral Industries; clark.niewendorp@dogami.state.or.us

RelatedResources: *If available, related resources are listed on separate page.*

Remarks:

LASTUPDT 2012-10-02 00:00:00

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Related Resources:

If any related resources for this URI exist, they are listed below.

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FIELD KEY: AASG Geothermal Data: Hot Spring Feature content, v. 0.9

This spreadsheet indicates the content requested for basic data characterizing a hot spring feature for the AASG geothermal data project. Typically water temperatures are recorded with other information such as water quality or chemical analysis from a particular spring. The temperature and flow rate reported here are meant to be generalized characterization.

NewAttrDispName	AttrDesc
HotSpringURI	Unique identifier for the hot spring. Best practice is to define an http URI that will dereference to a normative description of the feature.
Name	human-intelligible label for feature
Label	label as it would appear on a map, may include feature name and pertinent data such as temperature
OtherName	other human-intelligible labels for feature such as secondary spring name or common name, other spellings
OtherIdentifier	Other identification associated with springs
Source	short text explanation of source of information defining feature; should include some indication of how digital data originated. Recommend including full citation for source of the data in this record. Note a separate source field is available if temperature and flow data have a separate provenance. If all records in table are from same published source, the citation may be put on the dataset metadata sheet and left blank here.
SourceURI	Identifier for the cited source. Ideally an http URI that may be dereferenced to produce a representation of the original source document.
FeatureType	term from controlled vocabulary classifying kind of geothermal feature; hot, warm, thermal
LandLeaseOwner	list ownership if known
OtherLocation-Name	Basin name, area name
County	county name
State	state name
PLSS_Meridians	reference meridians used to define township and range grid.
Township	list township and direction (15 N)
Range	list range and direction (7 E)
Section	list section number of 1 through 36
SectionPart	list quarter-quarter-quarter section
Parcel	list assessors parcel number or recorded map number and parcel for location
UTM_E	UTM easting coordinate.
UTM_N	UTM northing coordinate
UTMDatumZone	utm datum and zone, e.g. NAD27_12
LatDegree	WGS 84 latitude
LongDegree	WGS 84 longitude
SRS	Spatial Reference System for latitude and longitude. Use WGS 84 for interoperability
LocationUncertaintyStatement	list method used to estimate feature location (middle of qtr section, GPS measurement, located on map for coordinates) and uncertainty of actual position

NewAttrDispName	AttrDesc
ObservationURI	Not required if only a single temperature or flow rate is reported. If this table is used to compile multiple temperature or flow-rate measurements associated with a single HotSpring occurrence (same HotSpringURI), then each measurement requires a distinct identifier in this column. If temperature or flow-rate measurement is auxiliary to a water-chemistry analysis, this should be the observationURI that identifies the chemical analysis. In the service architecture, a hot spring feature is characterized by a single temperature measurement that would be the average of multiple measurements reported for the spring. Each observation URI would be published via a 'water temperature observation service'-- cross referenced to the hot spring by a water source identifier.
Temperature	Temperature of analyzed water when sampled.
TemperatureUnits	°C or °F
TempMeasurementProcedure	detail of basis for reported temperature, e.g. 'average of 27 measurements between 1957 and 1967';spot measurement on 12/15/94'.
TempMeasurementDateTime	YYYY-MM-DDThr:mm; formatting follows ISO 8601; time assumed to be GMT
Flow	Average measured volume of water per unit of time. Has units.
FlowUnits	Units of measurement in flow quantity. See data valid terms.
FlowMeasurementProcedure	YYYY-MM-DDThr:mm; formatting follows ISO 8601; time assumed to be GMT
FlowMeasurementDateTime	Include information on how temperature and flow rate are measured, reference for original data
Measurement-Source	Citation for source of measurement. Corrected or extrapolated temperatures should record who made the corrections.
Classification	detail of how measurement was acquired (field or laboratory instrument, correction or extrapolation) if known
RelatedWaterChemistry	None if no chemical data available; string listing available constituents or analysis types if analyses are available.
DataEntrySource	information on person, date of creation of this data record.
Remarks	all other information pertaining to geothermal data that does not fit into a feature should be listed in remarks

Additional DOGAMI data fields:

CLASS	high (>35°C) or low temp. spring classification
TOPO24K	USGS 7.5 minute topographic quadrangle name
TOPO100K	USGS 30 x 60 minute topographic quadrangle name
HEAT	direct-use application area
REF_ID	internal DOGAMI source publication cataloging system
LASTUPDT	date this URI record was last updated