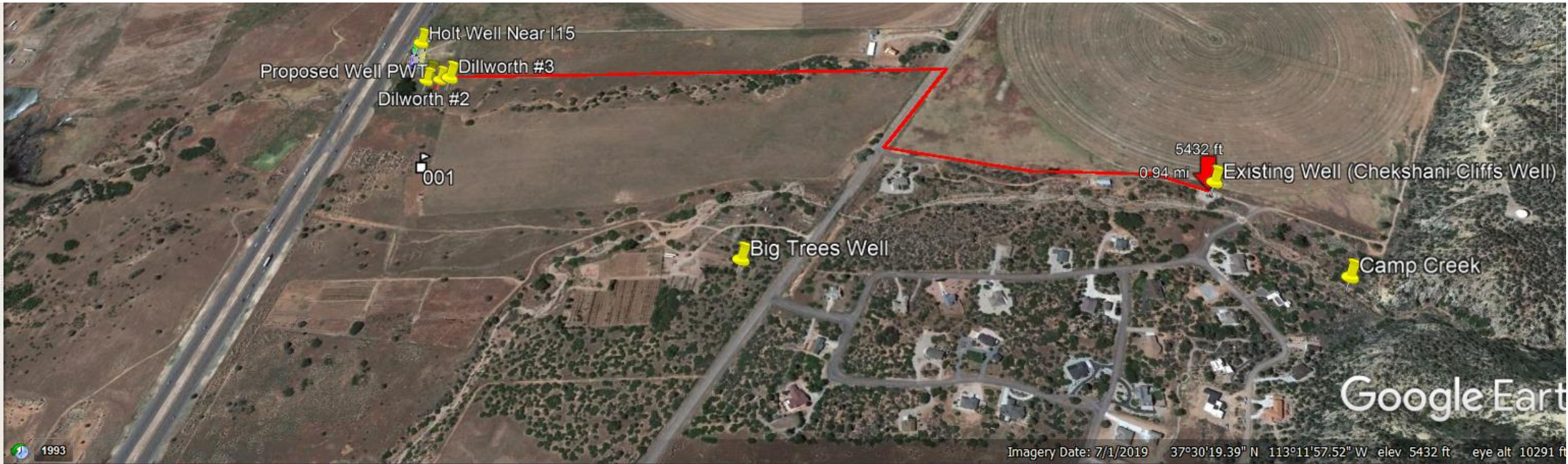
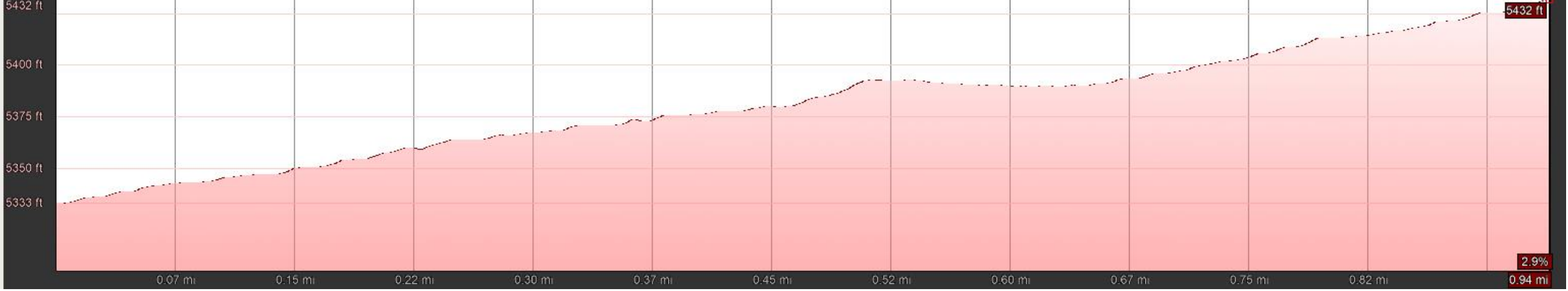




Chekshani Cliffs Well Locating



Graph: Min, Avg, Max Elevation: 5333, 5381, 5432 ft
Range Totals: Distance: 0.94 mi Elev Gain/Loss: 109 ft, -9.63 ft Max Slope: 8.5%, -4.9% Avg Slope: 2.6%, -0.9%



▼ Search

Search

ex: 37 25' 19.1"N, 122 05' 06"W

Get Directions History

▼ Places

- ▶ Well Log
- ▶ CICWCD_Monuments_State Plane.shp
- ▶ Weir
- ▶ Pine Valley Water Supply
- ▶ Geologic units of Utah
 - A geospatial database of geologic units and structural features, with highly generalized
- ▶ Flow Measurement sites
- ▶ Chekshani Cliffs
 - ▶ Chekshani_MERGED north field.kml
 - ▶ Chekshani_gamma_grid of Holt well.kml
 - ▶ Existing Well (Chekshani Cliffs Well)
 - ▶ Holt Well Near I15
 - <https://waterrights.utah.gov/docImport/0605/06053935.pdf>
 - ▶ Dilworth #2
 - 150' - 44 sec
 - 266' - 20 sec
 - ▶ Dilworth #1
 - 80' - 44 sec
 - 220' - 24 sec
 - ▶ Dillworth #3
 - 69' - 36 sec

▼ Layers

- ▶ Primary Database
- ▶ Announcements
- ▶ Borders and Labels
- ▶ Places
- ▶ Photos
- ▶ Roads
- ▶ 3D Buildings
- ▶ Weather
- ▶ Gallery
- ▶ More
- ▶ Terrain



Search

Search

ex: 37 25' 19.1"N, 122 05' 06"W

Get Directions History

Places

- [Kanarra Rest Stop](#)
- [Holt Well West of HWY 91](#)
- [Lund Home](#)
- [Well 400 N 1200 W](#)
- [Big Trees Well](#)
- [New Water Line to Well](#)
Line to Chekshani - \$223,000
- [Line to Kanarraville](#)
Line to Kanarraville \$429,037
- [Suzanne Larson Property](#)
- [Proposed #2 Larson Well](#)
- [Untitled Path](#)
- [Kanarraville Springs](#)
TDS = 415
- [Kanarraville Town Well](#)
2018 - TDS = 650
- [GPS device](#)
Created Thu Jul 16 18:26:11 2020

Layers

- Primary Database
- Announcements
- Borders and Labels
- Places
- Photos
- Roads
- 3D Buildings
- Weather
- Gallery
- More
- Terrain



6/1/2020 7:50:15 pm 6/1/2020 8:21:20 pm

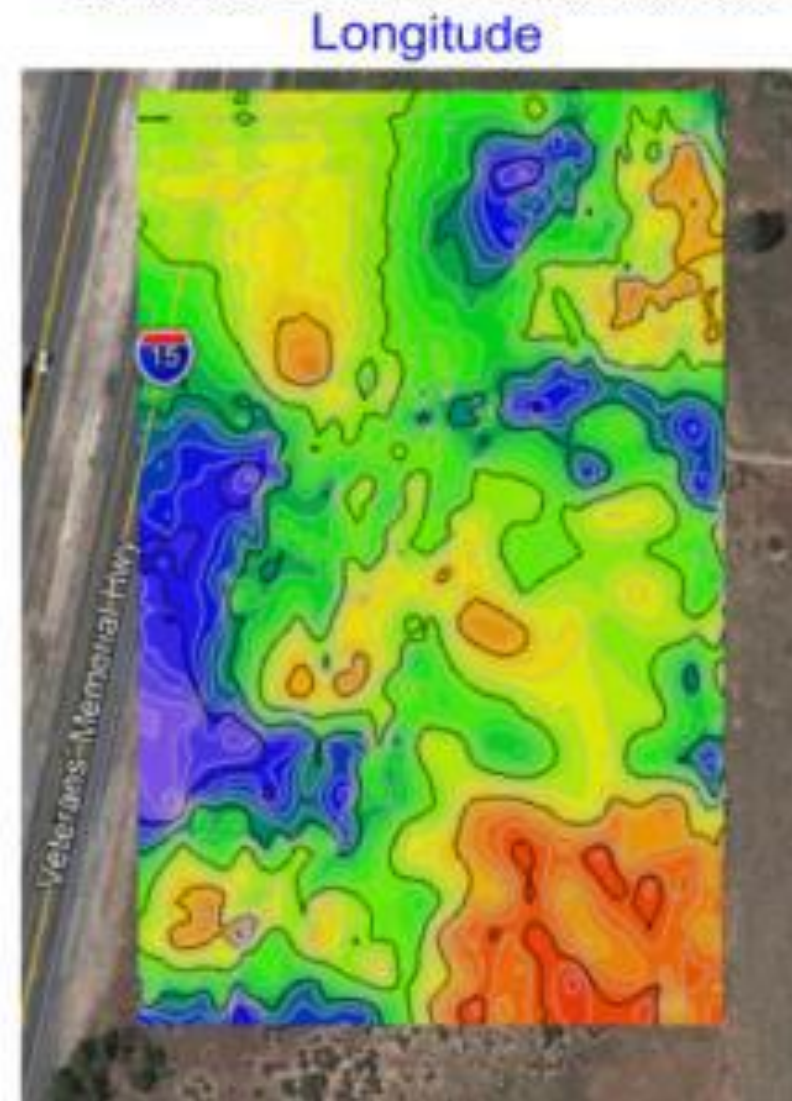
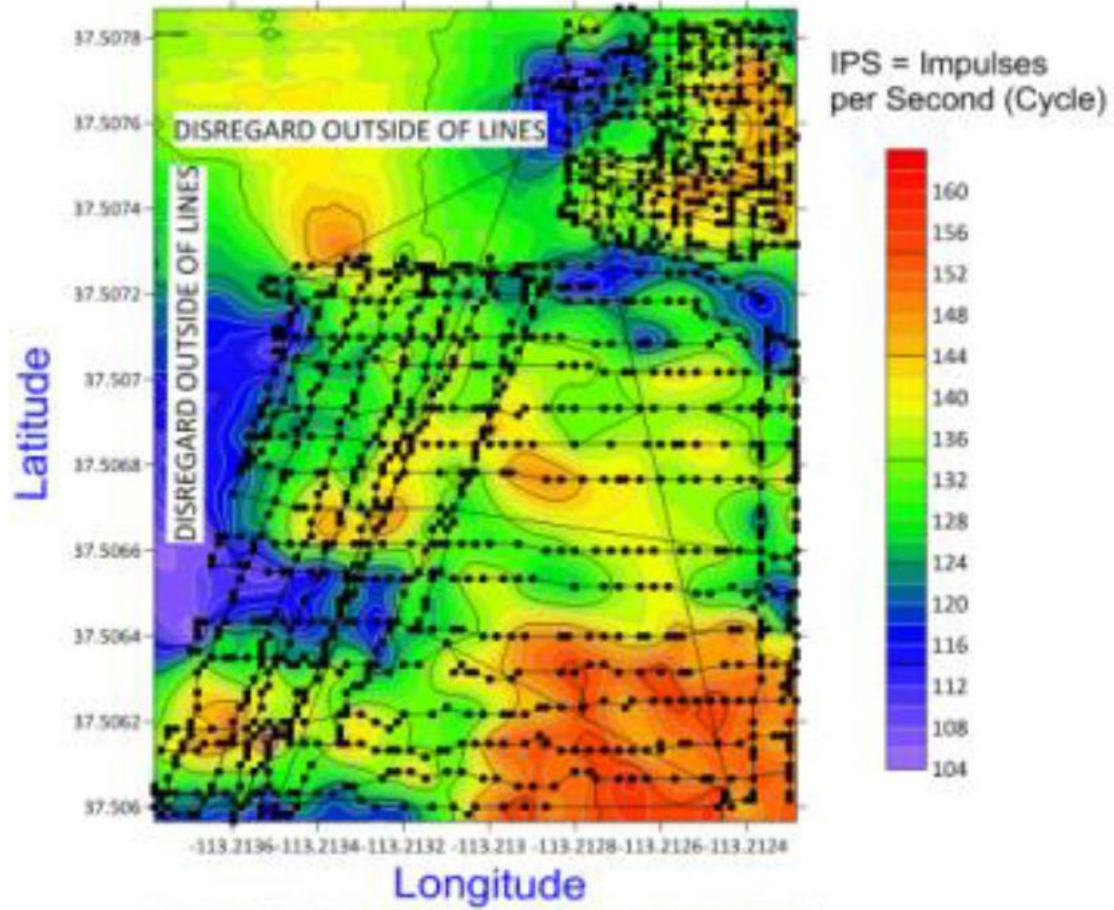
7:50 pm 8:21 pm

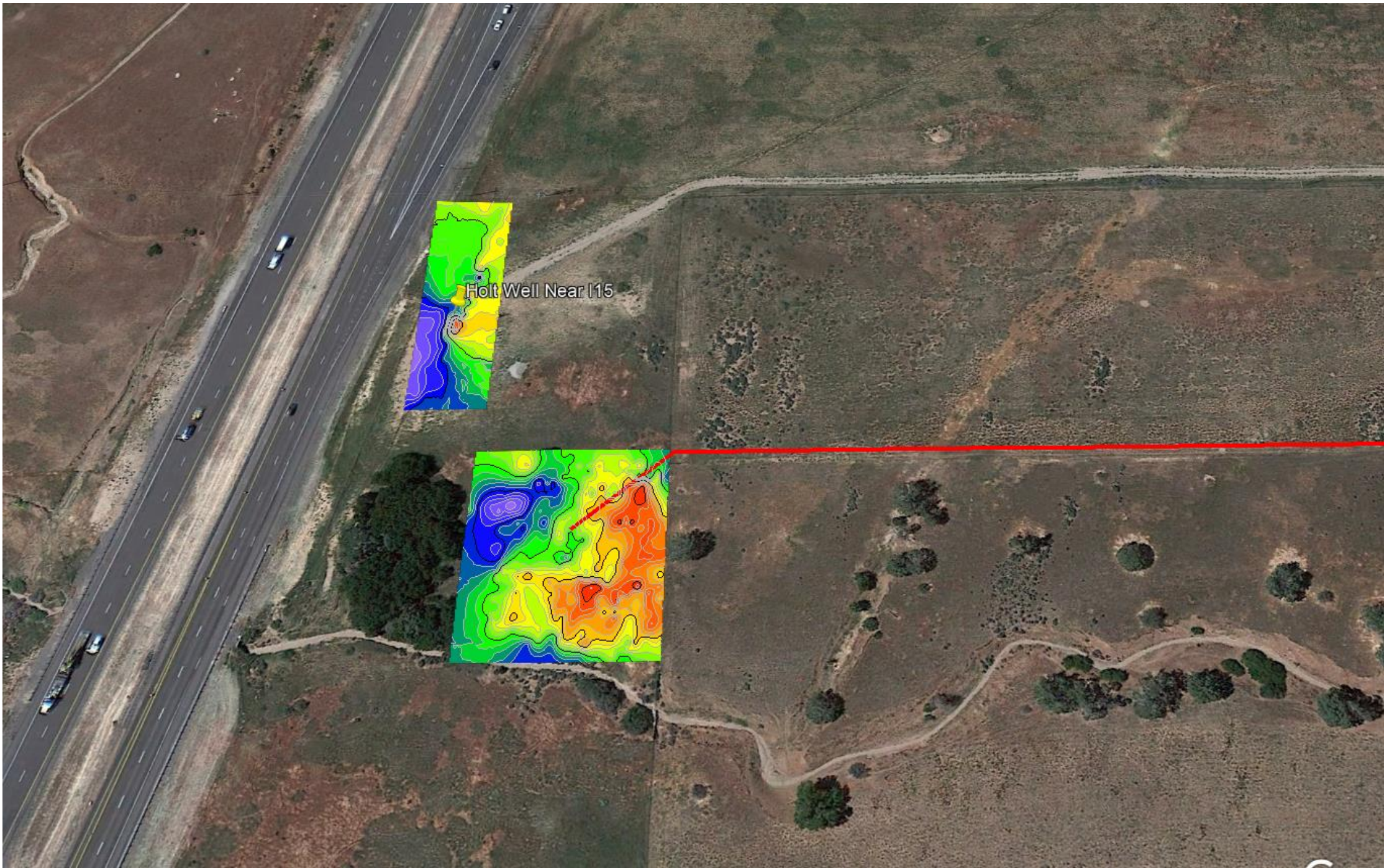


Holt Well Near I15

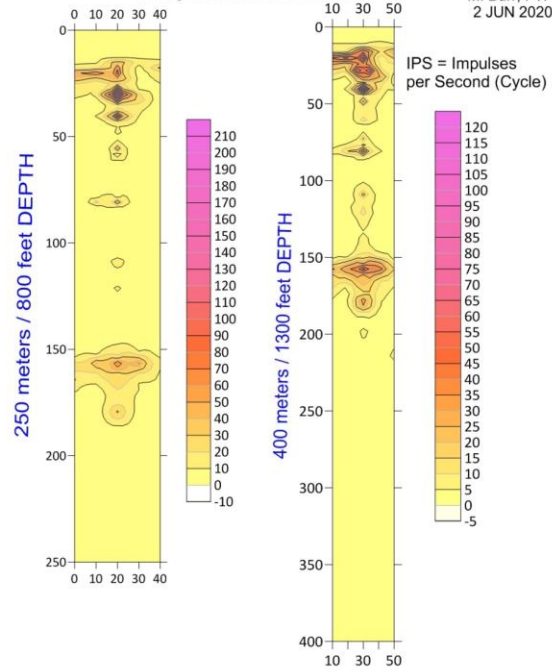
073 044 022
 065 043 021
 072 020
 063 041 019
 062 040 069 018
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 058 036 014
 057 035
 056 034 013
 055 033 012
 054 032 011
 053 031 009
 052 030 008
 051 029 007
 050 028 006
 049 027 005
 048 026 004
 047 025 003
 046 024 002
 045 023 001

Gamma grid of the 6-acre project zone:

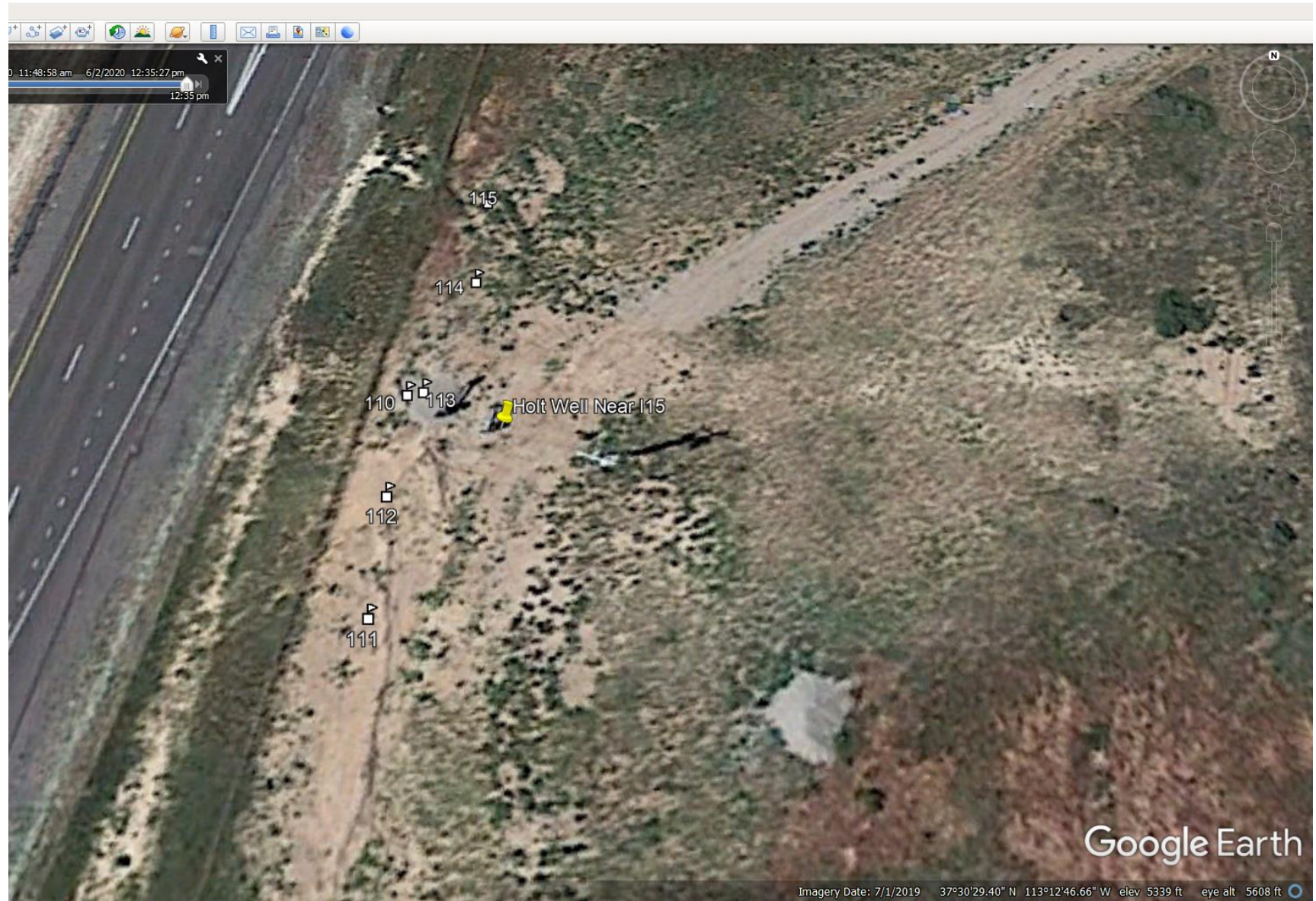
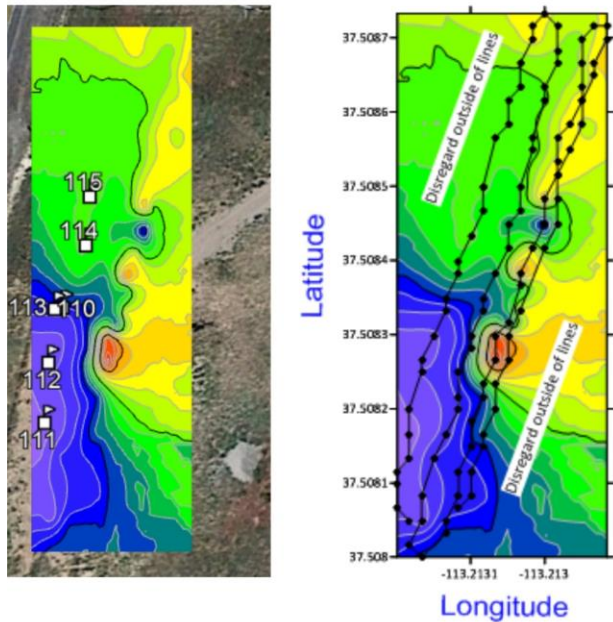




Holt Well Near I15



Gamma grid collected over Holt well (GPS waypoint 110)



Holt Well Log

- 1000' 16" casing

DEPTH (feet) FROM TO		BOREHOLE DIAMETER (in)	DRILLING METHOD	DRILLING FLUID
0	30	36"	MUD ROTARY	Water, Bentonite
30	525	26"	" "	" "
525	1000	22"	" "	" "

Well Log		WATER	PERMEABLE		UNCONSOLIDATED					CONSOLIDATED	ROCK TYPE	COLOR	DESCRIPTION AND REMARKS (e.g., relative %, grain size, sorting, angularity, bedding, grain composition density, plasticity, shape, cementation, consistency, water bearing, odor, fracturing, mineralogy, texture, degree of weathering, hardness, water quality, etc.)
DEPTH (feet) FROM TO	High		Low	CLAY	SAND	GRAVEL	COBBLES	BOULDER	OTHER				
0	18			X	X	X					RED	TOPSOIL	
18	58	X				X	X	X			TAN, RED		
58	66			X	X						RED		
66	170	X	X			X	X	X			TAN, RED	MULTY COLOR ROCK LOT OF SAND	
170	185			X	X	X					RED		
185	220	X	X			X	X	X			MULTY	LOT OF SAND	
220	353	X	X		X	X	X				RED, MULTY	INTERMITANT CLAY LENSES	
353	400	X	X			X	X	X			MULTY	MUD LOSS	
400	490	X	X		X	X	X				RED, MULTY	INTERMITANT CLAY LENSES	
490	540	X	X		X	X	X				" "	DRILLING SLOWED	

RECEIVED
OCT 23 2018
WATER RIGHTS
CEDAR CITY

Static Water Level

Date 8/10/18 Water Level 78 feet Flowing? Yes No
 Method of Water Level Measurement PROBE If Flowing, Capped Pressure _____ PSI
 Point to Which Water Level Measurement was Referenced TOP OF CASING Elevation _____
 Height of Water Level reference point above ground surface 1.5 feet Temperature _____ degrees C F

Well Location (note any changes)

S 1110 E 1230 from the NW corner of section 09, Township 38S, Range 12W, SL B&M

Location Description: (address, proximity to buildings, landmarks, ground elevation, local well #)

Well Log		WATER	PERMEABLE	UNCONSOLIDATED						CONSOLIDATED		DESCRIPTION AND REMARKS (e.g., relative %, grain size, sorting, angularity, bedding, grain composition density, plasticity, shape, cementation, consistency, water bearing, odor, fracturing, mineralogy, texture, degree of weathering, hardness, water quality, etc.)	
DEPTH (feet) FROM	TO			High	Low	CLAY	SAND	GRAVEL	COBBLES	BOULDER	OTHER		ROCK TYPE
540	577	X	X		X	X						RED, MULTY	10% CLAY EASY DRILLING
577	795	X	Y		X	X	X					RED, MULTY	10% CLAY HARDER DRILLING
795	800	X	X		X	X						RED, MULTY	20% CLAY
800	834	X	X		X	X	X					" "	10% CLAY
834	895	X	Y		X	X	X	X				" "	10% CLAY VERY HARD DRILLING
895	937	X	X			X	X	X				MULTY	" " "
937	942	X	X			X	X					"	EASY DRILLING
942	987	X	X			X	X	X				"	HARD DRILLING
987	1000	X	X		X	X	X					" RED	EASY DRILLING

RECEIVED

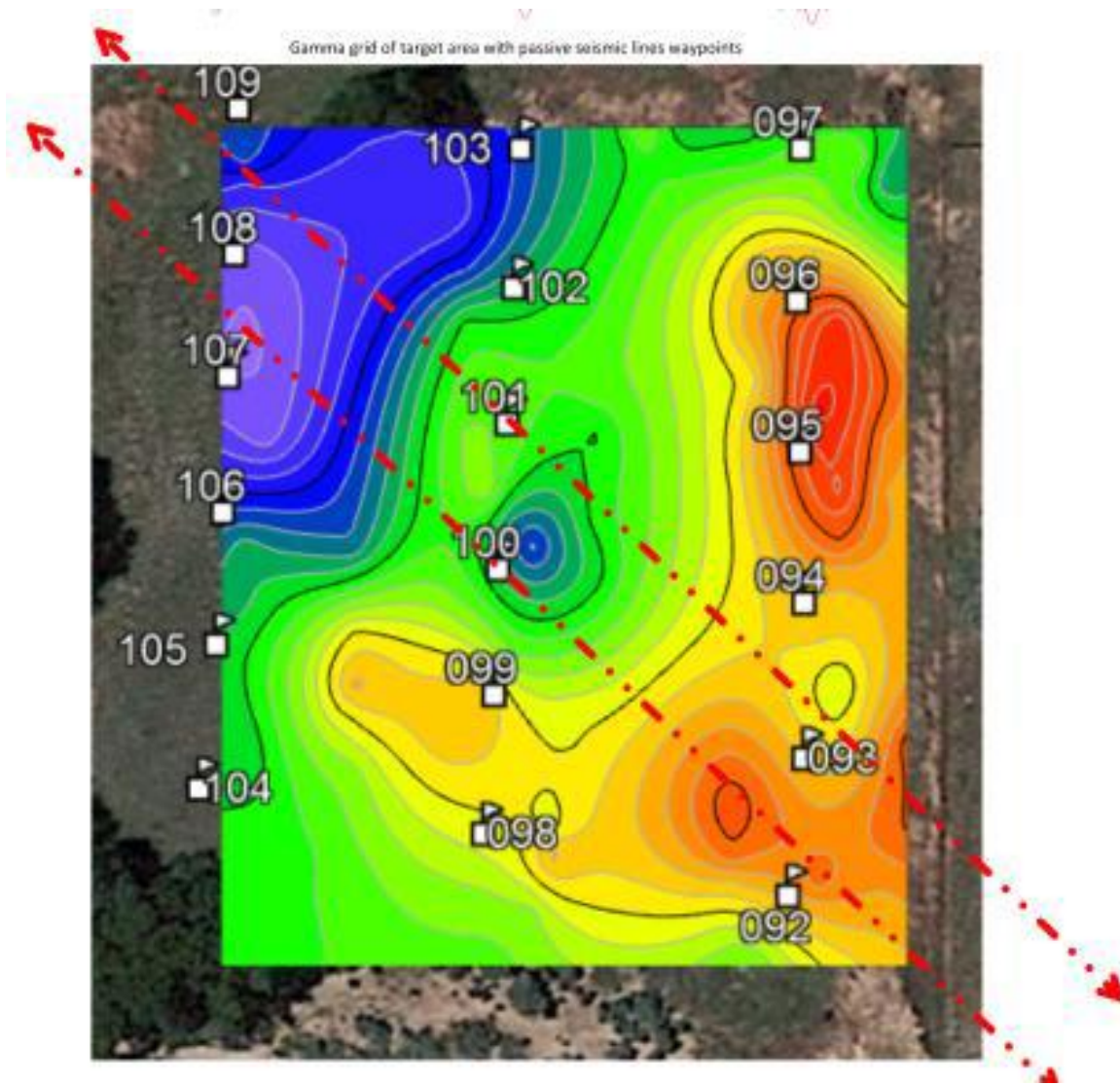


Dilworth #1

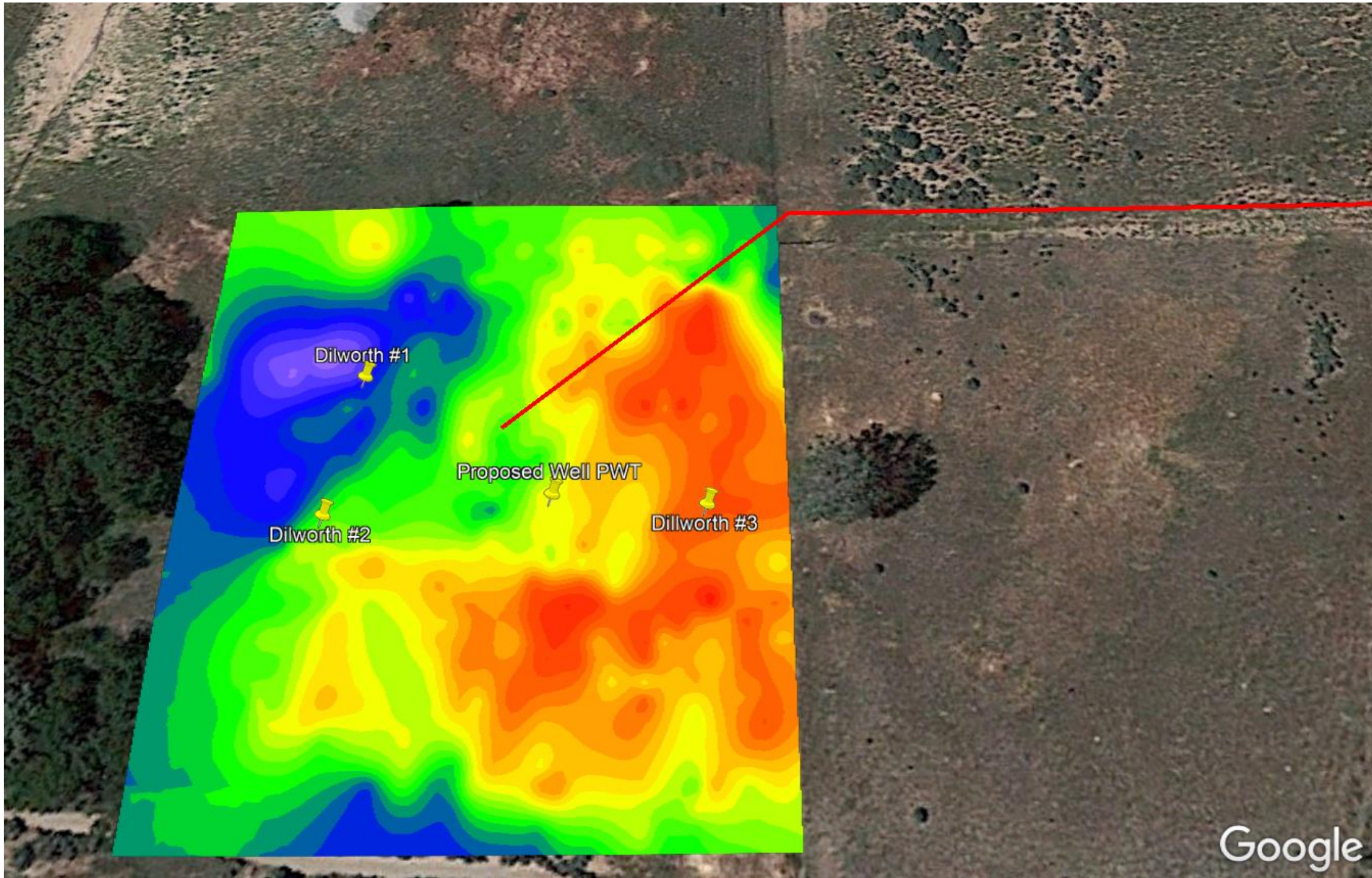
Dilworth #2

Proposed Well PWT

Dillworth #3



- Gamma grid of the north field target zone (with red dashed lines showing fault/fracture zone revealed by the passive seismic data):

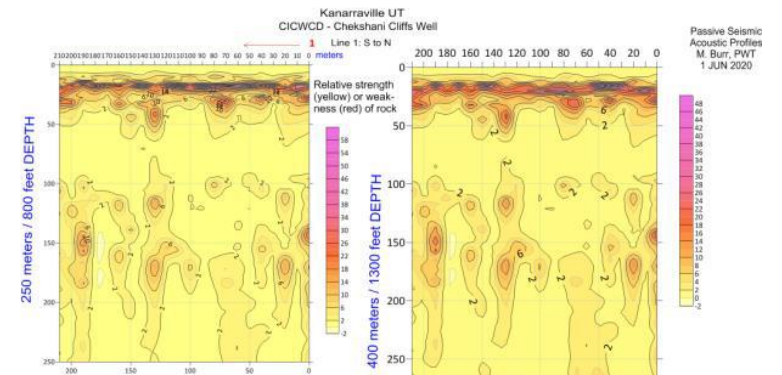
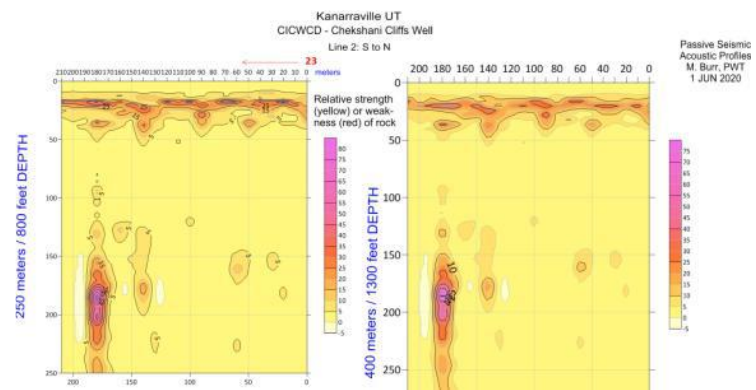
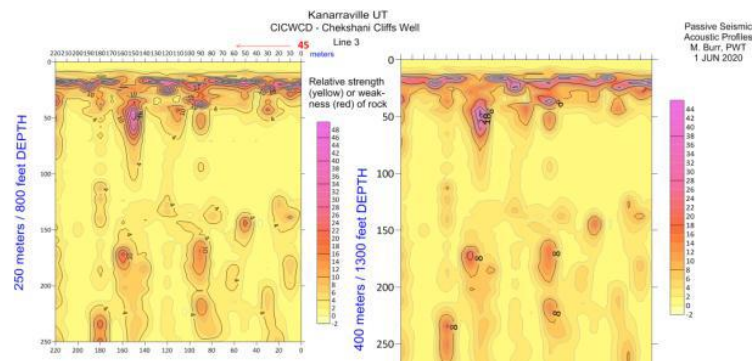


Dilworth #1


Dilworth #2

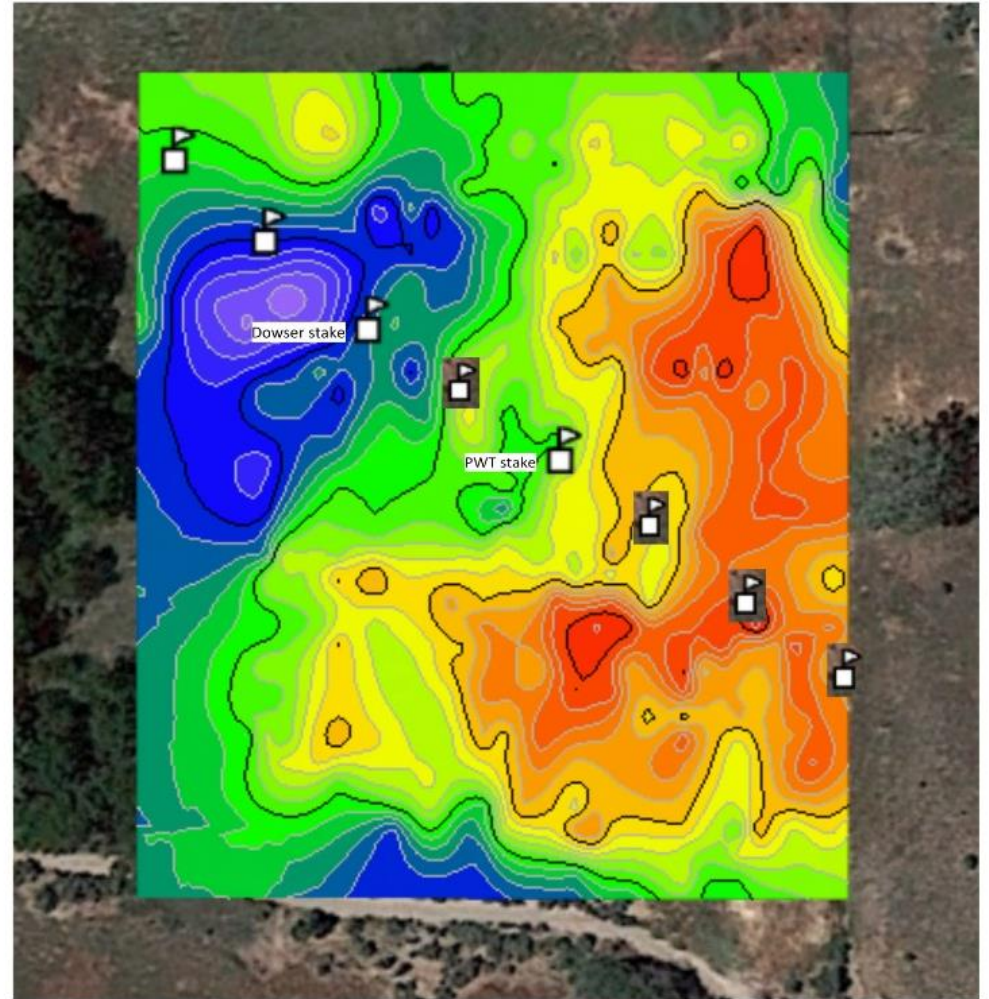
Dilworth #3

Proposed Well PWT





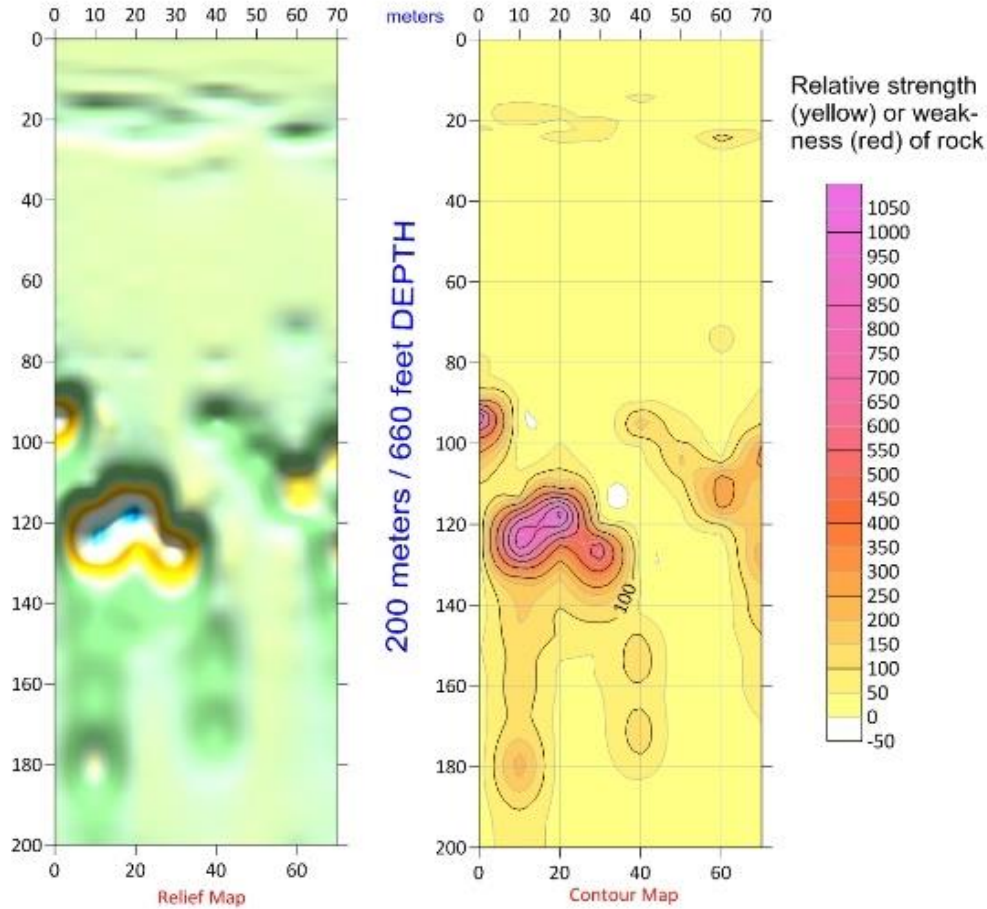
 GPS Waypoints - some missed but approximated on images above and below



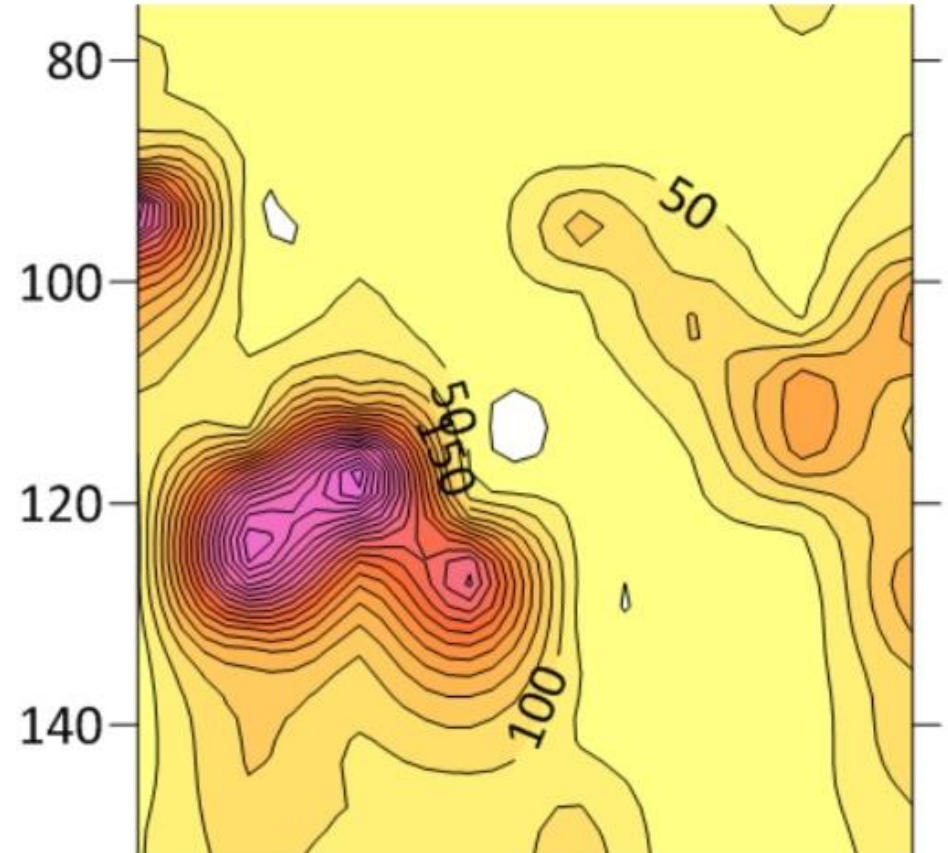
Passive Seismic
Acoustic Profiles
M. Burr, PWT
15 JUL 2020

Kanarraville UT
CICWCD - Chekshani Cliffs Well

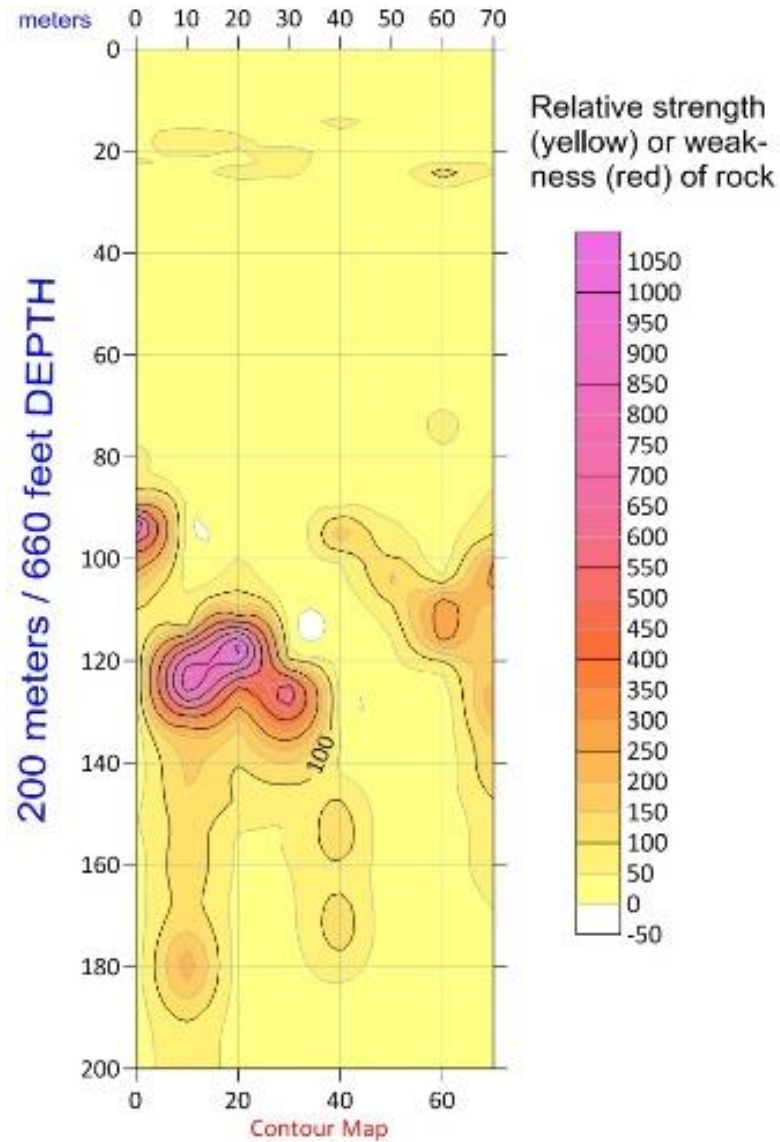
Cross Section: E to W over two stakes



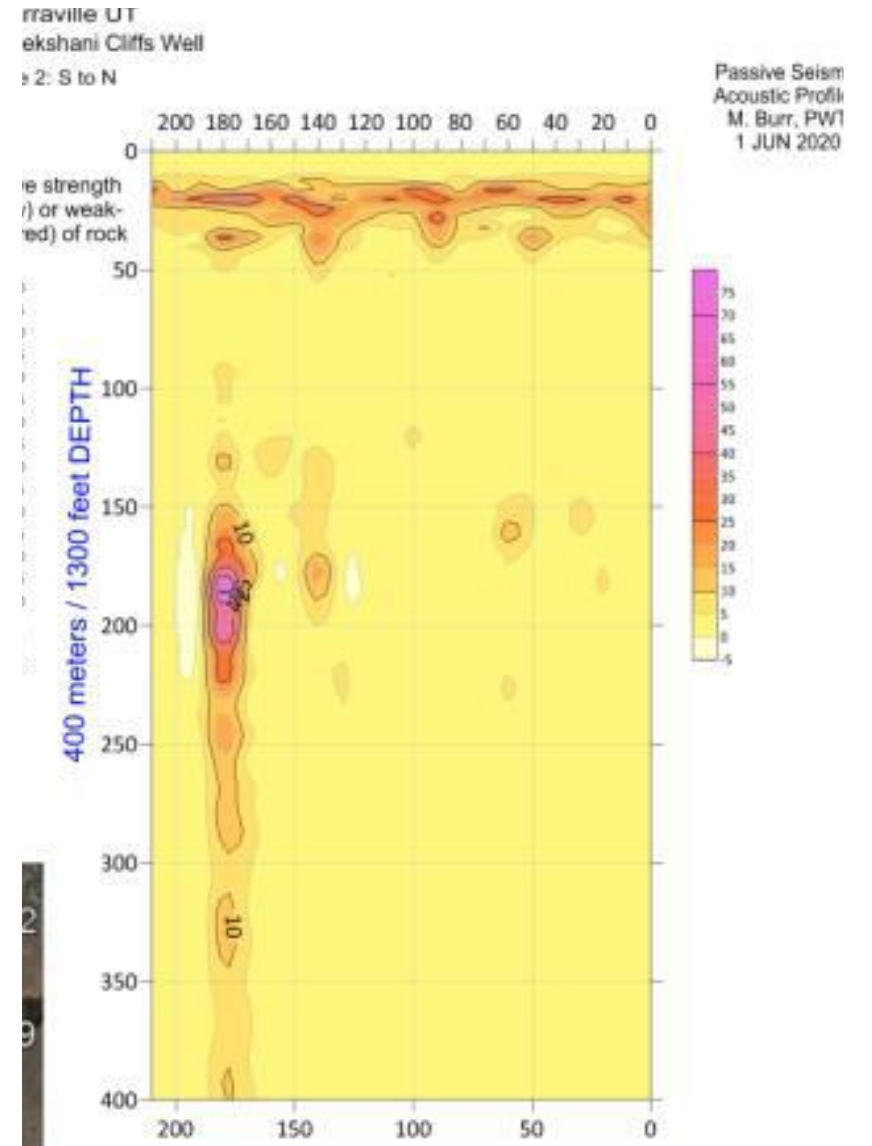
Magnification of 80-140m deep zone with anomaly (extreme weak zone)

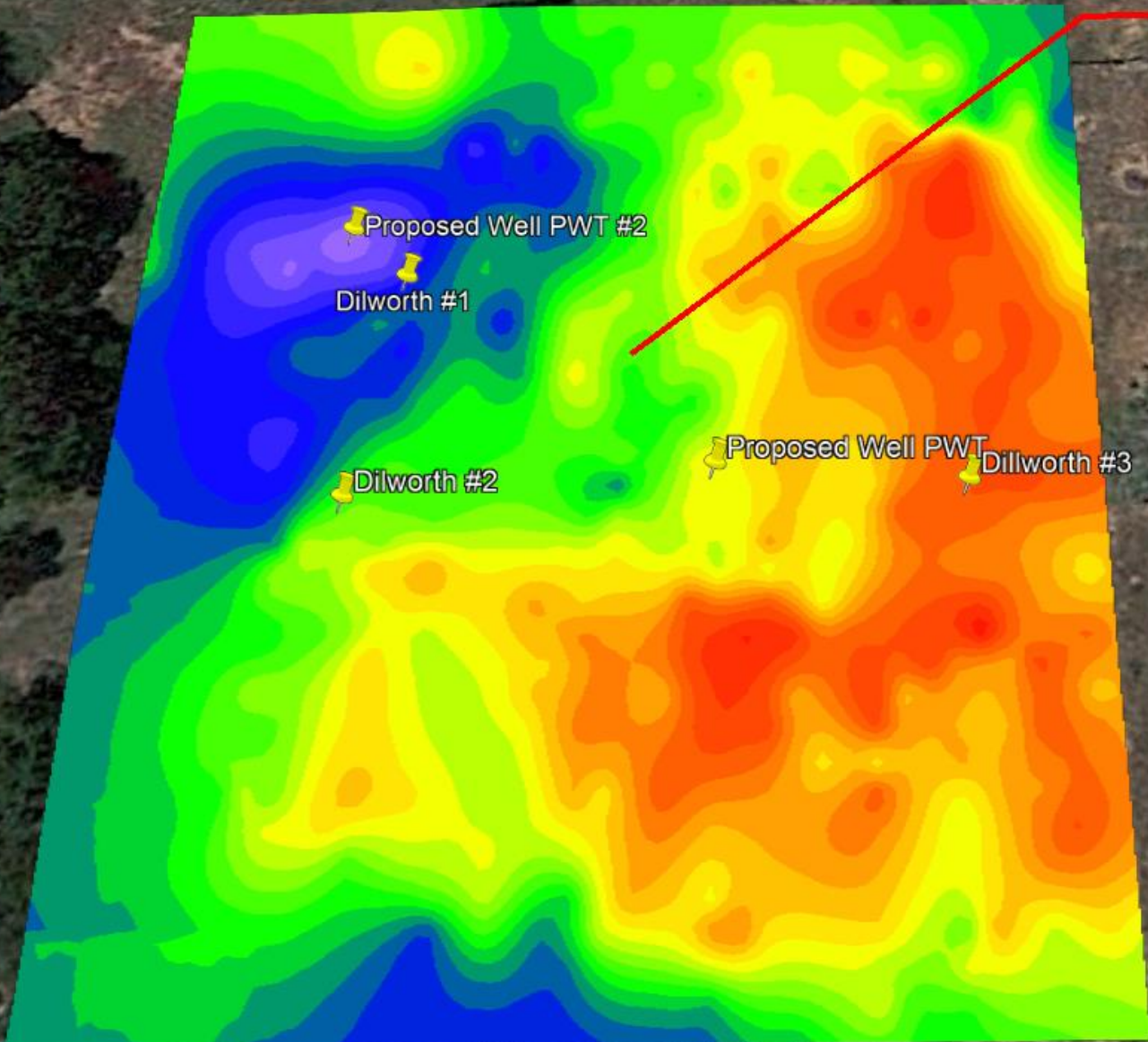


Dowser



PWT #1





At this point I would go with the blue stake or even move about 20 feet to the west over the lowest gamma in the center of that zone (lat/long below). Recommendation is for a small-bore well with expectation of ~120 meters / 400 feet to the heart of the weakest zone below the stake; run pump test to check water quality and check static level to gauge pressure; then make decision to bore out to 12" or more. The initial stake appears to be more prospective for connectivity to deeper production zones and more directly over a fault as judging by the profile as well as the numerous bio-indicators. (Such zones release much more magnetics, radiometrics etc and often kill plant life at the surface where only hardy thistles/weeds/grasses can grow.)

