



October 9, 2020

Shannon Jessica
Wallace Group
612 Clarion Court
San Luis Obispo, CA 93401

**Subject: Well Siting Study, Trent Sanders Property, 1200 Lake Nacimiento Drive
San Luis Obispo County, California, APN 080-041-036, -037 and -015**

Dear Ms. Jessica:

Cleath-Harris Geologists (CHG) has performed a well siting study of APN: 080-041-036, 080-041-037, 080-041-015, near Camp Roberts, San Luis Obispo County, California. The area investigated was the western portion of the parcels outside of the Paso Robles groundwater basin area, as defined in the California Department of Water Resources Bulletin 118 and shown on the County GIS database.

This well siting study has involved a review of soils, geologic maps and reports, information from three exploratory oil wells, and a geologic/hydrologic reconnaissance of the study area. Following the research and geologic mapping, CHG prepared a map of the elevation of the base of the Paso Robles Formation using information from the exploratory oil wells and estimated the depth to water based on exploratory oil well notes. Based on this information, CHG identified where a well could be located to produce from the Paso Robles Formation outside of the Bulletin 118 Paso Robles groundwater basin area.

WATER DEMAND/WELL PUMPING RATE GOAL

While the pumping rate of a new well is not known until it has been completed and tested, the design of a water well for bidding purposes needs to be based on the preliminary water demand estimate. There is another well on the property that has been tested at 20+ gallons per minute for one hour (DRC 2018-00094). In conjunction with this other well, 20 gallons per minute (gpm) from this well should be adequate to meet the cannabis water demand estimated in the referral document and up to 6 rural residences on the three parcels.

HYDROGEOLOGY

The Paso Robles Formation is the most favorable water-bearing geologic formation on the property. While the geologic map shows beds dipping about 40 degrees to the northeast, the Paso Robles Formation outcrops in the northwestern corner of the property were nearly flat-lying and consisted of an unconsolidated cobble conglomerate resting on a partially cemented pebbly sandstone exposed in the creek bed. The exploratory oil well information indicated that, the Paso Robles Formation generally dips to the northeast at a few degrees.



Beneath or at the base of the Paso Robles Formation, there may be a bituminous pebbly sand that could be within the Paso Robles Formation or the underlying Pancho Rico Formation. This bituminous pebbly sand rests on siliceous shale of the Monterey Formation where it is exposed along Vista Road. Groundwater from either of these underlying formations would not be expected to provide the water quality desired for the agricultural or domestic uses on the property. The deepest portion of the Paso Robles Formation in the non-basin area is in the northwestern corner of the property, at an elevation of about 540 feet above mean sea level (msl).

No wells exist in the area outside the basin boundary on the property and no surface water features such as flowing streams, ponds/reservoirs or springs were observed. One exploratory oil well data sheet indicates that the water level in a converted water well off of the property stood at an elevation of about 690 feet above msl. The adjacent San Antonio River, about one mile away, is at an elevation of about 580 feet.

WELL SITE

The recommended well site is in an area between the main draw and a tributary draw in the northwest corner of the property (see the attached site aerial photograph) (GPS coordinates of Latitude 35.783881 and Longitude 120.852852). A road would need to be cut from the ridge road to the east to get to the spot (about 1,500 feet from the well site). The closest power line is about 600 feet to the west.

The well site is at a ground surface elevation of about 790 feet and would be projected to encounter the base of the Paso Robles Formation at 540 feet elevation, with a possible saturated thickness of up to 150 feet. Should the water level be nearer the elevation of the river, there may not be adequate saturated thickness to produce the desired amount of water.

Subsurface conditions could vary considerably from what we base our location on and there is no groundwater information within 1/2 mile of the proposed well site. This means that the drilling is largely exploratory and there is a possibility that a well may not be completed, if insufficient aquifer material or bituminous formations are encountered at a shallow depth.

The location of the well site is adjacent to two drainages that should be protected from any drilling fluids used during drilling and development.

PRELIMINARY WELL DESIGN

Based on the projected depths of the water level and the base of the Paso Robles Formation, the well would be 240 feet deep. However, in light of the potential for varying conditions, CHG recommends that the well be drilled to 360 feet and that a down-hole geophysical log be run to provide an improved understanding of subsurface conditions. The drilling should be done with mud-rotary drilling equipment.



The design for this well is similar to that of a residential well. A technical sheet, bid sheet and preliminary well design drawing are attached for purposes of providing to the potential drilling contractors.

The water well is estimated to cost about \$35,000 to drill, construct and test, not including the access road and other grading/earthwork.

The site access road would need to be installed. The road and earthwork could be as a part of the drilling contract, or as a separate contract by another contractor. The drilling contractor should have some input on the road work. The drilling equipment is extremely heavy and needs to have an access road that allows for multiple trips with water trucks, gravel trucks and the drilling equipment. Wet weather access is a major concern of the drilling contractors.

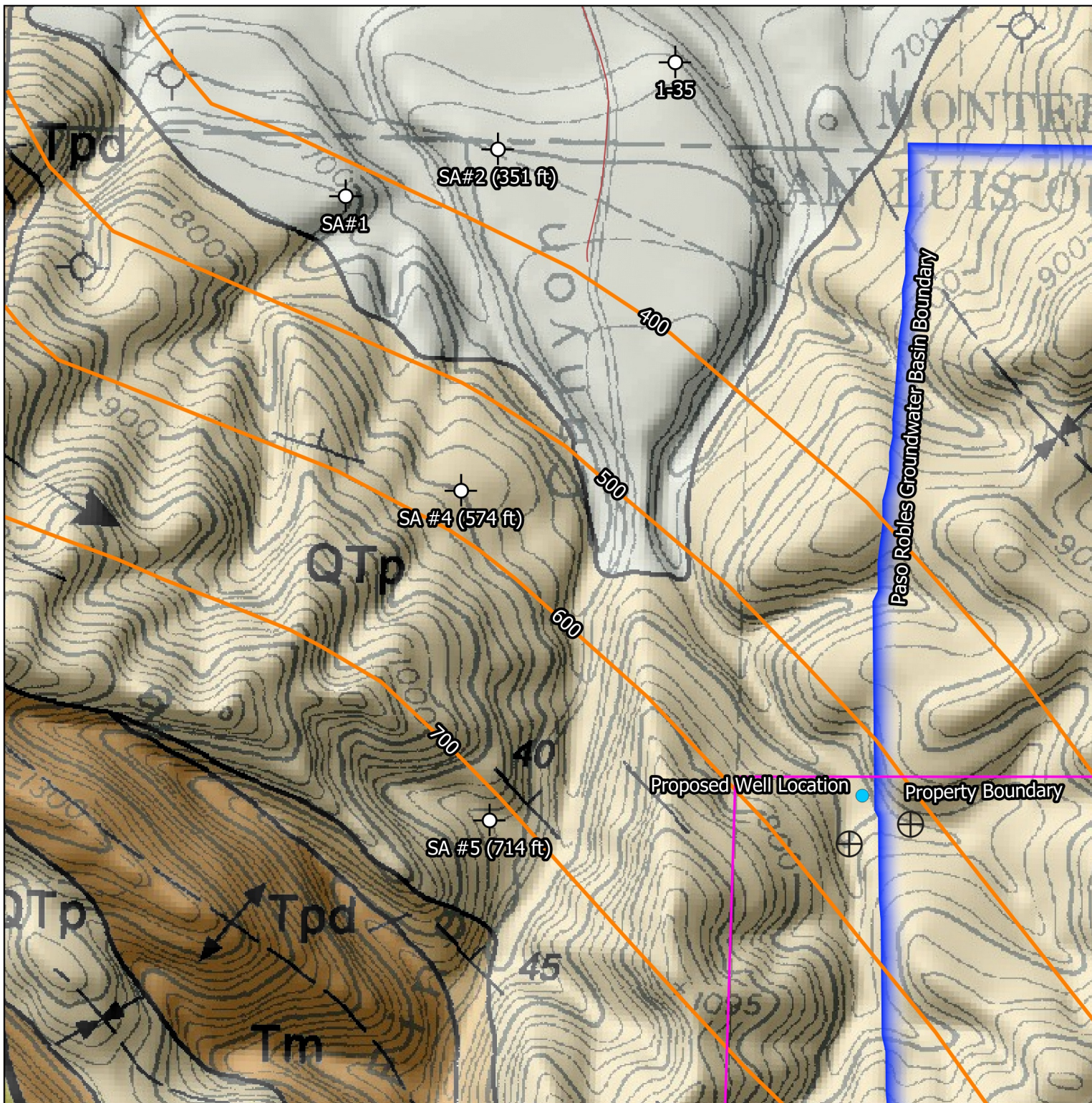
EXPLORATION CONSIDERATIONS

Exploration for water in relatively poorly understood areas always involves risk. CHG has utilized all available information and field mapping to select the most favorable well site. The actual conditions can be expected to vary from what is presented herein. Once the test hole is drilled, the decision to complete the well is made. If the formation and water level do not support completion of the well, the test hole should be abandoned, incurring about half of the anticipated cost of the completed well. If the information looks favorable, a decision to complete the well is made and the full cost of the well is incurred.

If you have any questions regarding our findings and recommendations, please call.

Very truly yours,

Timothy S. Cleath CHG PG
Principal Hydrogeologist
President
Cleath-Harris Geologists





APPENDIX

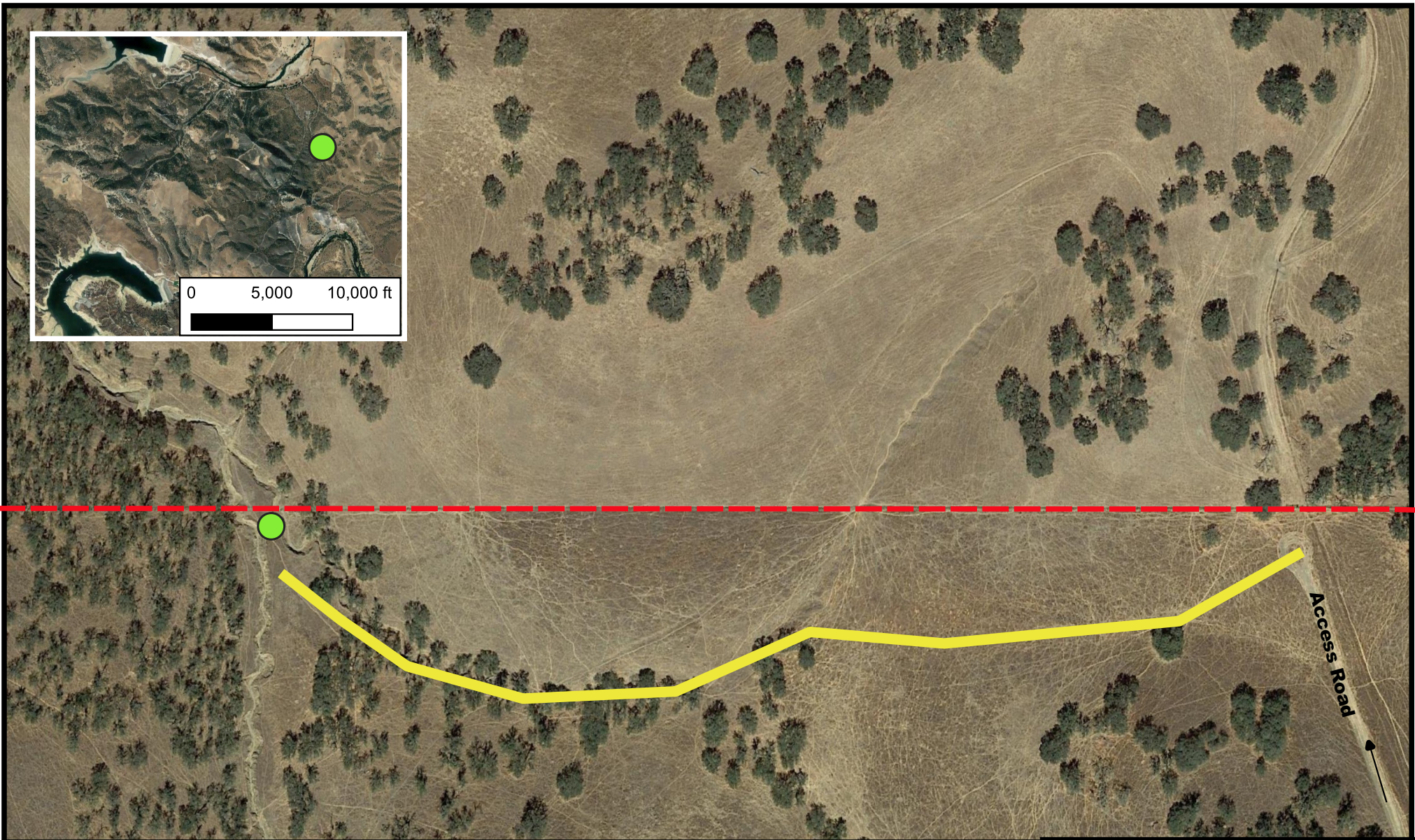
WELL DRILLING AND CONSTRUCTION

SITE MAP




DESIGN SHEET

BID SHEET

PRELIMINARY DRAWING



Explanation

-  Proposed Wellsite
-  Property Line
-  Suggested path for Site Road

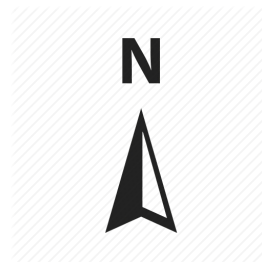


Figure 1
Proposed Wellsite Location
Trent Sanders Property

Cleath-Harris Geologists



Preliminary Design: Trent Sanders Property

Drilling Location:	6 miles southwest of Bradley, California (Latitude 35.783881; Longitude 120.852852).
Pilot hole depth:	370 feet
Geophysics:	SP, long and short normal, 6-foot lateral, gamma ray, caliper.
Well depth:	360 feet
Final borehole size:	12-inch nominal diameter.
Completion:	Blank PVC casing from wellhead to 200 feet depth, PVC screen from 200 to 340 feet depth, Blank PVC casing from 340 to 360 feet depth with end cap.
Centralizers:	Every 40 feet within screens (placed on blank portions of casing), every 60 feet within blanks.
Blank casing:	5-inch diameter, PVC F480, SDR 21.
Screen:	5-inch diameter, PVC F480, SDR 21 screen, 0.040-inch slot perforations.
Filter pack:	Cal Silica water well sand (8 x 16), or approved equal.
Sanitary Seal:	Cement grout seal from ground surface to 50 feet depth.
Pump test:	3-hour step test (assume 20, 40, 60 gpm); 8-hour constant discharge (assume 40 gpm).
Cuttings Pile:	Spread on site by contractor.
Drilling fluids:	Removed for disposal by contractor.

Trent Sanders Well

Date: 10/8/20

	Item (includes installation)	Units	Quantity	Unit Price	Item Price
1	Well Construction Permit	Lump Sum	1	Lump Sum	
2	Road building: from access road to site, approximately 1,500 feet long, 120+ feet change in elevation	Lineal foot	1,500		
3	Drill test hole	Lineal foot	370		
4	Geophysical logs (SP, long and short normal, 6-foot lateral, gamma ray, caliper.)	Lump Sum	1	Lump Sum	
5	Ream to 12-inch diameter	Lineal foot	360		
6	Install 5-inch diameter, PVC F480, SDR 21 blank casing, from wellhead to 200 feet depth, and 340 to 360 feet depth.	Lineal foot	220		
7	Install 5-inch diameter, PVC F480, SDR 21 screen, 0.040-inch slots from 200 to 340 feet depth.	Lineal foot	140		
8	Centralizers every 40 feet in screened intervals, every 60 feet in blanks	Each	21		
9	Filter pack (Cal Silica Sand, 8 x 16 or approved equivalent)	Cubic yard	8		
10	Sanitary cement seal	Lineal foot	50		
11	Install/remove test pump (with 1-inch I.D. sounding tube terminating immediately above pump bowls).	Lump Sum	1	Lump Sum	
12	Step test (assume 20, 40, 60 gpm)	Hour	3		
13	Constant discharge test	Hour	8		
14	Drilling fluid disposal	Lump Sum	1	Lump Sum	
15	TOTAL				
	Abandon test hole if necessary (do not add to total)	Lump Sum	1	Lump Sum	

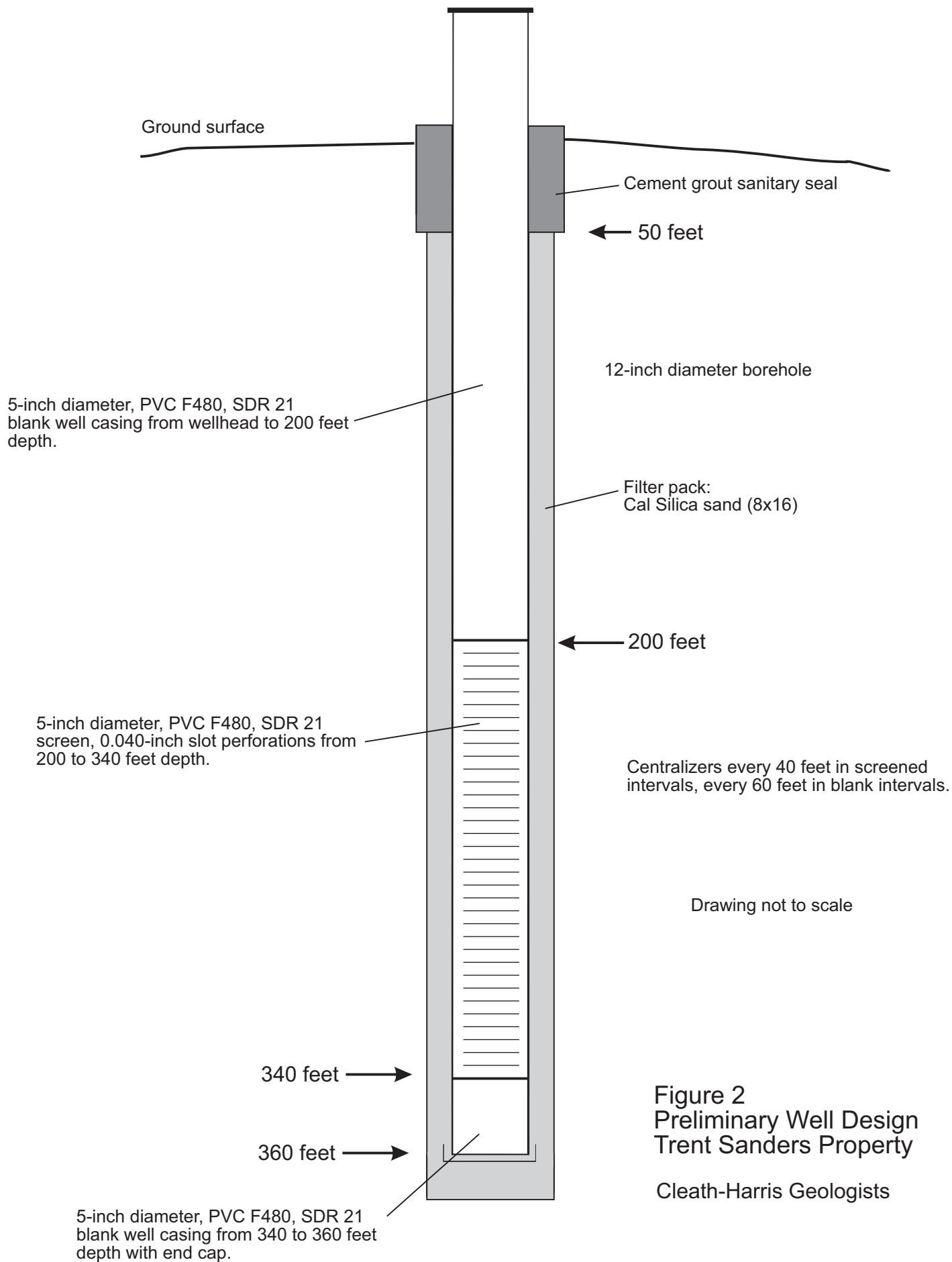


Figure 2
Preliminary Well Design
Trent Sanders Property

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