

NCW & ASSOCIATES, INC

August 29, 2022

Buckhorn Ranch Association, Inc.

Re: Proposed Well No. 3 Preliminary Well Test
Permit No. 86566F



The following is a summary of the preliminary well test:

The well is located at a point 380 feet southeast of the end of North Avion Dr. The well was drilled 6/20/22 to a depth of 99 feet. Ground water was encountered at an approximated depth of 35 feet and the material appeared to be clean to an approximate depth of 70 feet. From approximately 70 to 95 feet, water from the drilling rig was a brownish tan color which indicated more dirt like fines at this depth. Bedrock was encountered at 95 feet.

The well casing was perforated using a Holte perforator. The casing was perforated with approximately 630 1"x.25" holes from the depth of 30 feet to a depth of 60 feet.

A preliminary drawdown test was conducted on 7/9/22. A 3 horsepower pump was set at a depth of 82 feet and a transducer was set at a depth of 75 feet. The initial static level reading of the transducer was 44.38 feet. This equates to a depth from the top of the casing of 30.62 feet. This was verified with a well sounder that indicated the depth from the top of casing to be at 30.58 feet.

The flow rate was measured using a GF Signet 2537 meter and a Blue-White DIGI-METER F-1000 Series.

After setup was completed, the static level was 44.24 feet.

The preliminary pump test was run for 45 minutes at a rate of 77 gpm. The water level was leveling out at a depth of 41.1 feet. The pump was turned off. In the first 2 minutes of recovery, the depth was 43.50 feet. After a recovery time of 15 minutes, the water was leveling out a depth of 44.09 feet.

The preliminary drawdown was 3.09 feet. The approximate available drawdown to the 60 foot level is 15.8 feet at the time of this test.

A 24 hour Microscopic Particulate Analysis (MPA) and sand test was started at 12:24 p.m. on 7/13/22 with a flow rate of 86 gpm and an initial level of 42.3 feet. At the end of the test, the flow rate was 70.4 gpm at a depth of 39.73 feet and a drawdown of 2.6'. The sand collected with the Rossum Tester was 1.8 ml during the 24 hour test. This equates to approximately 0.005 cubic feet (4 oz volume) a day. The amount of sand may be reduced by additional exercising of the well.

A larger pump will be required to determine the full potential of this well. The well was tested during a period when the irrigation ditches were running. The water level should be monitored when the ditches are off. When the water level begins to stabilize, the well should be tested to see what the production will be under those conditions.

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Preliminary Drawdown Test Plot

7/9/2022

<u>Tme (p.m.)</u>	<u>Level</u>
4:15	44.24
4:20	41.60
4:25	41.40
4:33	41.27
4:42	41.20
4:45	41.18
4:55	41.15
5:00	41.10
5:02	43.50
5:04	43.77
5:06	43.89
5:08	43.96
5:10	44.01
5:13	44.10
5:15	44.09

