

**PRELIMINARY POST ANALYSIS SUMMARY**  
**FOR**  
**KEBO OIL & GAS, INC.**



**Summary**

The KEBO Oil & Gas Huebner #2 reached final TD at 10:00 am on July 3, 2019. Logging by Baker Atlas started at 7:00 am on July 4, 2019. We did not finish with cores/FT (formation tester) until July 7, 2019 at 11:00 am.

The Huebner #2 is located approximately 600 feet North East of the initial discovery well. After logging the well it was determined that the Huebner #2 was running 2 feet to 6 feet high to the discovery well in most zones. In addition to the projected 7 sands, we found 4 more possibly productive sands, including a new discovery sand at 8260 feet MD, that we have named the Independence Sand. The sand quality on most of the key objective zones has greatly improved going from the Discovery Well to the Huebner #2. The following is a brief description of each sand starting with the shallowest sand and moving deeper through the Tex Miss. For simplicity, I have divided the Tex Miss into four zones.

**Top of Frio**

We encountered the first Frio Sand at 7984 measured depth (MD). The Top of the Frio consists of a 15-foot tight sand with only two feet of permeability. I have given this sand no reserve potential, but it needs further evaluation before the well is abandoned.

**Crooker 8300 (8028' MD)**

This sand came in slightly high to the discovery well with similar tight sand characteristics. The sand consists of three thin laminations with a gross thickness of 20 feet. Side wall cores (SWC) indicate possible oil production in the top lobe (3 feet thick) with 25 md of perm and 22.6% porosity. Note these thin sands produced up to 1 MMBO per well in the adjacent Hammon Field. I give this zone a possible 70,000 BO.

## **Hammon 8400 (8139' MD)**

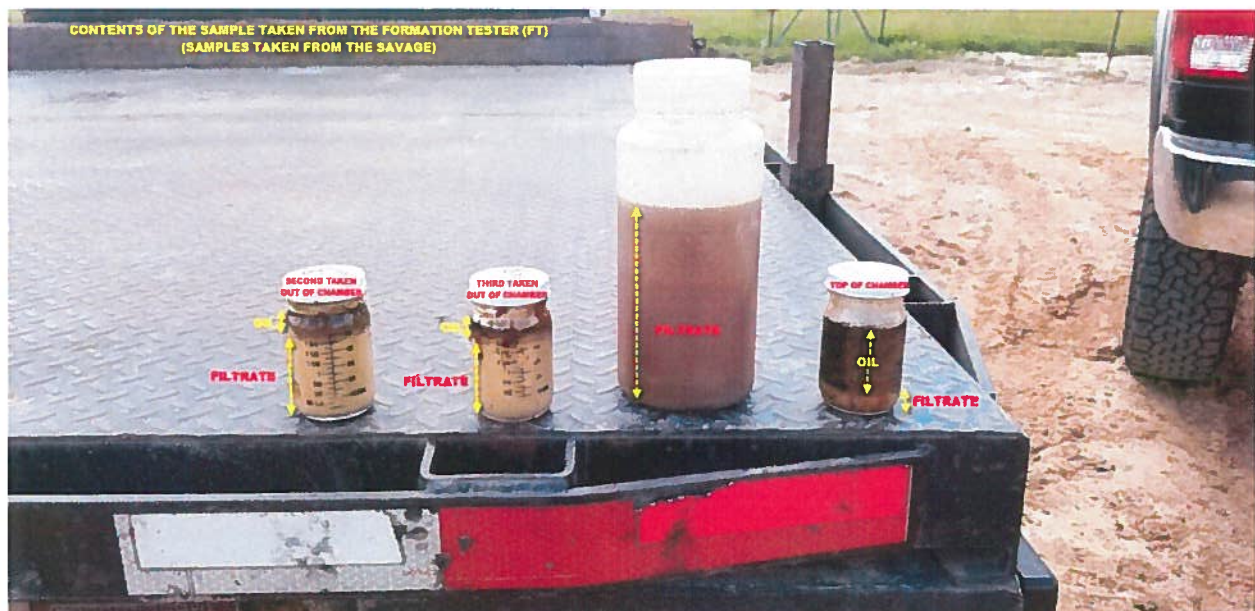
This sand came in 4 feet high to the discovery well but like the discovery well the SWC indicate oil with high water saturations. I believe that this zone will produce a small amount of oil with a high water cut. Therefore, production from this zone is very likely non-commercial.

## **Independence Sand (8260' MD) (New Discovery)**

The Independence Sand has a gross thickness of 7 feet with an average thickness of 4 feet. According to log and SWC data, this zone is probably oil productive with perm as high as 255 md and 29% porosity (proved to be the best SWC taken). Using 40 acres of closure gives this zone a possible 40,000 BO.

## **Savage 8755' MD**

The Savage Sand regionally has been a great producer of oil. Just down dip to our location there are two wells that produced 95,000 BO and 59,881 BO. We ran an FT at 8758' MD and filled the chamber with oil, gas and filtrate, with bottom hole pressure of 3475 # or virgin pressure (see picture of oil samples below)



With SWC indicating perm up to 151 md and 29.7% porosity, we could have 80,000 BO in this zone.

## **Upper Sloan (9008' MD)**

This zone is two feet high to the original discovery well. This sand has 30 feet gross thickness, with a net thickness of 12 feet. Unfortunately, no cores were recovered in this zone, but because we got SWC and an FT with 3002 # BHP in the discovery well, we feel confident in our evaluation of the Huebner #2 well. We believe we have a possible 1.9 BCF of gas in this zone in the Huebner #2.

### **Sloan (9112' MD)**

Like the Upper Sloan, this sand came in two feet high to the discovery well. Unfortunately, like the Upper Sloan we did not have good recovery of cores. However, we did recover an oil core at 9126' MD, which was in a low resistivity (1 ohm) section of the sand. It is believed that the resistivity of water in this area is 0.8 ohms, so it is possible that this sand is full top to bottom with oil. This gives us a net thickness of 24 feet. We also got an FT in the discovery well which indicated 1220 # BHP. This low pressure is regionally known, so it should not affect the outcome of this zone. Using the available data on this zone, gives us a possible 180,000 BO.

### **Discorbis "A"**

We hit the Discorbis "A" in Huebner #2 at 9224 MD which is two feet high to the discovery well. This is a "PUD" sand, which produced 113,000 BO in the down dip Pan Am Huebner #1. Through this down dip well we can establish a water contact 16' below the top of sand in the Huebner #2. Note an FT was taken in this zone in the Discovery Well indicating a wet zone. However, the log and SWC data indicate the sand is productive. The area of extent above the water contact is 122 acres. Using a net sand thickness of 6 feet gives this sand a possible reserve of 183,000 BO.

### **Discorbis "B"**

We encountered this sand at 9270 MD which is 4 feet high to the discovery well. On log the sand appears to have a water contact at 9277 MD, but the log has evidence of a lot of flushing do to drilling. The original well had an apparent water contact, by log of 9283. This difference is probably do the flushing fortunately we have a good gas core at 9284 MD (perm 89 md and porosity 28.8%) which indicate the sand is probable to be productive top to bottom. Unfortunately, we were unable to recover SWC from 9270 thru 9280 with the above information. With 122ac of potential reserve and a net sand thickness of 12 feet, we can give this sand a probable 1.2 BCF of reserve.

### **Discorbis "D"**

The Discorbis "D" consists of two sand sections an upper and lower. The upper sand came in at 9462 MD which is flat to the discovery well. This sand is probably wet. We hit the lower Discorbis "D" 9569 MD which was not only 14 feet high to the original well but was better developed. The zone has produced in Lucky Field to the north but not in the immediate surrounding wells. Through the log information and SWC data, gives us continece that the top lobe of the lower Discorbis "D" is probably productive. This lobe at 9594 MD had gas SWC of 70 md and 28.3% porosity. Using just this upper lobe we believe this sand has a possible 1.2 BCF of reserves.

### **Top of the Tex-Miss**

The Top of the Tex-Miss generally consists of a 300-foot laminated sand/shale section that for the sake of simplicity I have divided into 4 zones. Note the Top of the Tex-Miss is usually highly laminated, consisting of several two foot to five-foot sands. However, in the Huebner #2 we found some thicker sand bodies of 14 feet to 15 feet. It is not uncommon for these sands to be saturated with gas, oil and sometimes water. You can even have a water sand on top of an oil/gas sand in a series of laminations. We hit the Top of the Tex-Miss at 9840' MD, which is structurally flat to the discovery well. Fortunately for us the Huebner #2 developed much better perm and porosity. We even picked up new sands within these laminations.

### **Zone #1 (9840' MD – 9888' MD)**

Evaluation of core information indicates that the top of Zone #1 is gas and seems to transition to oil with depth. The cores indicate perms of between 24 md and 125 md with porosities from 24% to 29%. This zone has a net thickness of 14 feet covering 148 acres, giving us a possible potential of 3.1 BCF + 186,000 BO.

### **Zone #2 (9919' MD – 9932' MD)**

This zone contains a 24-foot sand section that exhibits a flushing profile on the log, but I believe has a water contact at 9928' MD, giving us 9' of condensate oil on top of water. We took an FT test in this zone at 9922' MD. We filled the chamber with 53 cubic feet of GAS + 1500 cubic feet of filtrate. The bottom hole pressure (BHP) was 4427 #. The SWC indicate probable oil production with between 37 and 39 gravity oil. The perm in this sand is between 18 and 140 md. The sand covers 148 acres with a net thickness of 6 feet, giving this zone a possible 222,000 BO + gas.

### **Zone #3 (10017' MD – 10114' MD)**

This zone is highly laminated with sand stringers varying from 1 foot to 5 feet thick. It is not uncommon to find a water sand on top of an oil/gas sand separated by a thin shale zone, so when attempting to produce this zone we need to pay close attention to the water zones. With a good cement bond this zone can be exploited. According to core data these thin sands have perms ranging from 26 md to 88 md and porosities from 23.6% to 28.8%, so we could possibly have as much as 740,000 BO using a net sand thickness of 20 feet covering 148 acres.

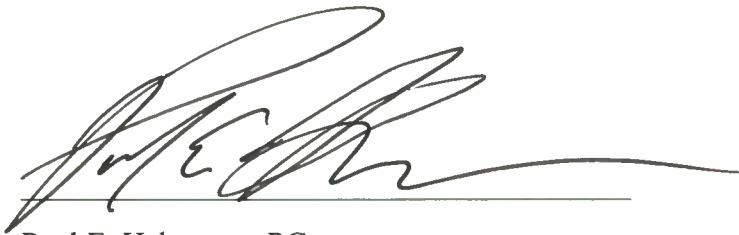
**Zone #4 (10118' MD – 10136' MD)**

Like Zone # 2, we have a more massive sand that has a gross thickness of 18' with a net thickness of 8 feet. The core data indicates between 37 - 39 gravity oil, top to bottom, with no water contact. Porosity in this sand runs between 24.9% and 28%. I recommend this zone as our first zone to test. The sand covers 148 acres giving us a possible reserve of 592,000 BO.

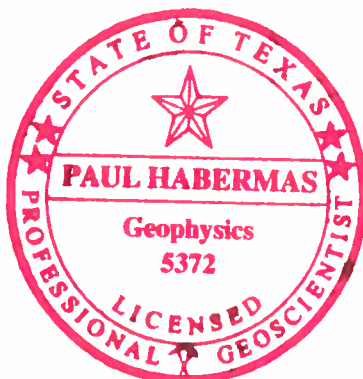
**Recommendation**

We encountered all our objective horizons flat to high from the original discovery well (Welder Huebner #1). In addition, we found 4 new sands that are all possibly productive. Not including our primary objective, the Top of the Tex-Miss, we discovered 9 additional potentially productive sands. Since we divided the Top of the Tex-Miss into 4 separate zones, this well has a total of 13 potential pay zones. With these observations I recommend running pipe on this well to total depth of 10,200 feet. We have run x-ray diffraction (XRD) + Electron Microscopy on previous wells we have drilled in this area, and all have concentrations of water sensitive clays. To mitigate this problem, I recommend using greater than 5% KCL water during completion. I recommend perfining 16 feet in Zone #4 of the Top of the Tex-Miss from 10118' MD to 10134' MD.

On the next page I have attached a spread sheet summary of all our potential zones for easier reference.



Paul E. Habermas, PG



**Notes on all possible zones in the Kebo Oil & Gas, Inc. Huebner #2 well**

<b>Formation (MD= measured depth)</b>	<b>Net Thickness</b>	<b>Prod AC</b>	<b>Potential Reserve</b>	<b>Comments (SWC = SIDE WALL CORE) (md = millidarcy) (FT = formation tester)</b>
<b>Top Frio (7784' MD)</b>	<b>6'</b>	<b>UNK</b>	<b>UNK</b>	<b>Low Perm (log/SWC)</b>
<b>Crooker 8300 (8028' MD)</b>	<b>3'</b>	<b>140</b>	<b>70,000 BO</b>	<b>Tight Sand (log/SWC oil)</b>
<b>Hammon 8400 8139' MD</b>	<b>22'</b>		<b>WET</b>	<b>WET (log/SWC)</b>
<b>Independence Sand (8260' MD)</b>	<b>4'</b>	<b>40</b>	<b>40,000 BO</b>	<b>Perm 255 md Probable Oil (SWC data)</b>
<b>Savage (8755' MD)</b>	<b>4'</b>	<b>80est</b>	<b>80,000 BO</b>	<b>Perm 72-150 md/35-39 gravity (SWC data) (Oil productive 45 gravity FT/Log)</b>
<b>Upper Sloan (9008' MD)</b>	<b>12'</b>	<b>72</b>	<b>1.9 BCF</b>	<b>Poor SWC recovery based on #1 well @3002# (gas productive by log/SWC)</b>
<b>Sloan (9112' MD)</b>	<b>24'</b>	<b>72</b>	<b>180,000 BO</b>	<b>Based on SWC data productive top to bottom BHP regionally low pressure 1220# (oil productive by log/SWC)</b>
<b>Discorbis "A" (9224' MD)</b>	<b>6'</b>	<b>122</b>	<b>183,000 BO</b>	<b>16' above water contact produced by Pan Am Huebner #1 (113,000BO) 36 gravity (Oil Productive by Cores)</b>
<b>Discorbis "B" (9270' MD)</b>	<b>12'</b>	<b>122</b>	<b>1.2 BCF</b>	<b>Possible water contact @ 9214' poor SWC recovery (possible 7' of GAS on water)</b>
<b>Discorbis "D" (9585' MD)</b>	<b>6'</b>	<b>130</b>	<b>1.2 BCF</b>	<b>SWC indicate probable GAS production not produced in immediate area. (no water contact)</b>
<b>Top of Tex-Miss 9840' MD (zone 1) 9840' MD-9888' MD</b>	<b>14'</b>	<b>148</b>	<b>3.1 BCF 186,000 BO</b>	<b>SWC indicate gas/oil productive - perm 38md-128md - Top of Tex-Miss sands are highly laminated</b>
<b>(Zone 2) 9910' MD-9943' MD</b>	<b>6'</b>	<b>148</b>	<b>222,000 BO</b>	<b>SWC indicate 37-39 gravity oil FT retrieved oil and gas plus filtrate. One massive sand lobe (oil production perm 12 md-140 md)</b>
<b>(Zone 3) 10,017' MD-10,114' MD</b>	<b>20</b>	<b>148</b>	<b>740,000</b>	<b>Highly laminated 1'-5' stringer sands. Log indicates flushing, Indicating oil production.</b>
<b>(Zone 4) 10,115' MD - 10136' MD</b>	<b>8'</b>	<b>148</b>	<b>296,000</b>	<b>One massive Lobe SWC indicate 37 - 39 gravity oil productive (Recommended zone for initial perfs)</b>
<b>Potential Total Reserve for Top of Tex-Miss</b>			<b>1.44 MMBO 3.1 BCF</b>	
<b>Potential Total Reserve for well</b>			<b>2.00 MMBO 7.4 BCF</b>	