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COLIN K. LINEBERRY, *DIRECTOR*
HEARINGS SECTION

RAILROAD COMMISSION OF TEXAS

OFFICE OF GENERAL COUNSEL

OIL & GAS DOCKET NO. 04-0262193

THE APPLICATION OF WT CONSTRUCTION, INC. TO MAINTAIN AND USE A PIT FOR THE DISPOSAL OF WATER BASED DRILLING FLUIDS IN ITS HOFFMAN #1 DRILLING FLUID DISPOSAL PIT, DUVAL COUNTY, TEXAS

HEARD BY: Richard D. Atkins, P.E. - Technical Examiner
James M. Doherty - Legal Examiner

APPEARANCES:

REPRESENTING:

APPLICANT:

Stephen Fenoglio
Grant A. Jackson
Linda Weeks

WT Construction, Inc.

PROTESTANTS:

Estella P. Cantu
Estella P. Garcia
Ines Cruz
Cindy Perez
Commissioner Rene M. Perez

Self
Self
Self
Self
Duval County Commissioner

PROCEDURAL HISTORY:

Application filed:	October 9, 2008
Protest received:	January 9, 2009
Request for hearing:	March 3, 2009
Notice of Hearing:	July 29, 2009
Hearing Held:	September 15, 2009
Transcript Received:	September 29, 2009
PFD Issued:	October 7, 2009

EXAMINERS' REPORT AND PROPOSAL FOR DECISION**STATEMENT OF THE CASE**

WT Construction, Inc. ("WTCI") requests authority to operate a water based drilling fluid disposal pit at its Hoffman #1 Drilling Fluid Disposal Pit facility in Duval County.

The application was protested by Estella Garcia, her daughter Estella Cantu and Duval County Commissioner, Rene M. Perez. Estella Garcia lives directly across the road from the MLWT Limited Partnership ("MLWT") property where the Hoffman #1 Drilling Fluid Disposal Pit is proposed. The Ms. Cantu believe that current disposal operations on the property have contributed to her mother's health problems and have adversely affected the water quality in her mother's water well.

DISCUSSION OF THE EVIDENCE**Applicant's Evidence**

WT Construction, Inc. is owned by Mike and Linda Weeks, who also own MLWT Limited Partnership which owns the 631 acre tract where the Hoffman #1 Drilling Fluid Disposal Pit is proposed. The tract is located approximately 11 miles west of Premont, Texas, adjacent to FM 1329 and approximately 1.5 miles south of the intersection of FM1329 and FM 716. Four other disposal pit permits have already been granted by the Commission on the 631 acre MLWT property, Rancho Nuevo Pits #1, #2, #3 and BES Pit #1. These permits were issued in 1997 and 2002. All of the pits were permitted to dispose of water based drilling fluids, except Rancho Nuevo Pit #2 which was permitted to dispose of treated oil and gas waste from a nearby land treatment facility. Rancho Nuevo Pits #1 and #2 have already been backfilled and closed, BES Pit #1 is undergoing closure and Rancho Nuevo Pit #3 is currently active.

The Hoffman #1 Drilling Fluid Disposal Pit is proposed for use as a disposal pit for water based drilling fluids that contain chloride concentrations of 3,000 mg/l or less. It is anticipated that the site will receive an average of 200 to 800 cubic yards of waste per day, or 10 to 40 truckloads per day on an intermittent basis. WTCI stated that this location would have a positive impact on the oil and gas operations in the area, as it would provide a more economical means of disposing of drilling waste since it is close to where it is generated.

The pit is an excavated caliche pit which has an irregular shape (See Appendix A - Hoffman #1 Drilling Fluid Disposal Pit and MLWT Limited Partnership Property Layouts). The maximum length of the pit is 1,206 feet and maximum width is 651 feet. The pit area covers just over 10 acres, is 9 to 12 feet deep and has a total capacity of approximately 573,000 barrels. Several interior and intermediate berms will be constructed within the pit to divide the pit into three smaller disposal cells.

This area of Duval County has a mean yearly evaporation rate of 64 inches and a mean yearly rainfall of only 24 inches. The difference shows that there is 40 inches more evaporation than rainfall and large quantities of water that could potentially drive contaminants into the surface water will not be accumulated. In addition, the 100 year 24 hour rainfall event at this location is only 11 inches. WTCI proposes to keep at least two feet of freeboard between the waste level and the pit ground level and remove any accumulated storm water within the waste area. This free water will be removed by vacuum truck and hauled to a commercial salt water disposal facility.

The four closest groundwater monitoring wells to the proposed Hoffman #1 Drilling Fluid Disposal Pit surround the Rancho Nuevo Pit #3. WTCI analyzed the drilling information and, in the area of the proposed facility, there are two to four feet of sandy loam soil, underlain by caliche, which has been mined from the area of the Hoffman #1 Pit. The caliche layer extends to a depth of 23 to 40 feet and beneath the caliche is a red brown silty clay soil which extends to a depth of 44 to 47 feet. Fresh water saturation was encountered at a depth of 48 to 50 feet.

Useable quality water in the area of the Ranch Nuevo facility occurs at a depth below 50 feet, based on Texas Water Development Board records. WTCI submitted records for the four water wells within one mile of the facility to verify the depth of useable quality water. These water well records also confirm that there are at least 45 feet of caliche and clay above the useable quality water. WTCI submitted analyses showing the high clay content in soil samples taken beneath the caliche layer. The data indicate that the clay interval is virtually impermeable.

In addition to the four water wells for which records were submitted, WTCI recently identified another seven water wells in the area. One of the water wells is located approximately 500 feet from the Rancho Nuevo Pit #3 on property occupied by Mr. Norman Trevino. His property is adjacent to Ms. Garcia's property. No records were found for this well indicating depth.

The Primary Drinking Water Standards established by the EPA and TCEQ list the safe level of arsenic at 0.010 milligrams per liter. WTCI presented a 2001 EPA Field Investigation Report and a 2004 TCEQ Environmental Trade Fair Presentation documenting high levels of arsenic in drinking water across the nation and in the state of Texas, particularly in Duval County.

In the 2001 study, the EPA sampled Rancho Nuevo Pits #1 and #2, as well as the groundwater from nearby residents' wells. The arsenic concentration within Rancho Nuevo Pit #1 was 4.3 milligrams per kilogram and within Rancho Nuevo Pit #2 was 5.7 milligrams per kilogram. The arsenic concentration in Mr. Trevino's new well was 0.047 milligrams per liter while all other residential wells were below the detection level of 0.010 milligrams per liter. The EPA study noted that the arsenic concentration in the public groundwater systems in Duval County ranges between 0.0089 milligrams per liter and 0.058 milligrams per liter. The EPA study concluded that there was no indication that the waste in the Rancho Nuevo Facility pits had impacted the water in the residents' wells.

In response to landowner complaints of groundwater contamination in the vicinity of the Rancho Nuevo Pits, Commission staff along with the TCEQ performed an investigation. A review of analytical records of the arsenic concentration in the treated waste transferred from the land treatment facility to Rancho Nuevo Pit #2 revealed the concentration of arsenic within this waste was less than a quarter of the maximum allowable concentration of arsenic established in the permit. Per the pit permit, waste added to Rancho Nuevo Pit #2 from the land treatment facility was required to contain less than 10 milligrams per kilogram of arsenic. The waste actually added to the pit had an arsenic concentration of less than 2.5 milligrams per kilogram. The water based drilling fluids added to the proposed pit is not expected to contain arsenic or nitrates in concentrations high enough to cause groundwater contamination.

Groundwater monitoring wells located to the south and east of the BES Pit, which are between the disposal pit and the private residential water wells to the east, do not reveal elevated levels of nitrates. Although arsenic concentrations are not monitored in these wells, analyses from 2002 through 2007 do not show that concentrations of any of the other parameters which are monitored have increased, indicating that the waste within the pit has not infiltrated into the groundwater system.

WTCI plans to install four groundwater monitoring wells on each side of the proposed Hoffman #1 Drilling Fluid Disposal Pit. Because regional groundwater in this area flows from northwest to southeast, samples from these wells will be an important indicator of whether groundwater is being affected by the disposal operations. Samples will be collected from each monitoring well quarterly for the first year, the first sample being taken prior to any waste being deposited in Hoffman #1 Drilling Fluid Disposal Pit. After the four samples in the first year, samples would then be taken on an annual basis. Results of the analyses will be submitted to the Commission. In addition, WTCI has no objection to submitting the results to the protestants.

WTCI estimates that Hoffman #1 Drilling Fluid Disposal Pit will have a life of 1-5 years. Since the disposal pit will contain three cells, only one cell will be open at any one time. Each cell will be closed and certified prior to opening the next cell of the pit. Each cell of the pit will be closed and returned to pasture land by leveling the berms, covering the pit with topsoil, contouring it to the natural grade and covering it with seed. The estimated closure cost of the pit is \$32,000. Financial security in that amount will be required before the pit is put into operation.

Notice of the application was published twice in *The Freer Press*, a newspaper of general circulation in Duval County, and in the *Alice Echo News Journal*, a newspaper of general circulation in Jim Wells County, on December 31, 2008 and January 7, 2009. A copy of the application was sent by certified mail to the surface owner and all adjacent surface owners.

Protestant's Evidence

Ms. Garcia lives across FM 1329 from the currently active Rancho Nuevo Pit #3 facility. Ms. Cantu used to live with her mother, Ms. Garcia, but has recently moved away because of the need to haul water for household use. Ms. Cantu testified that the water from the well on her mother's property is not useable and causes burning and stinging of the skin. Ms. Cantu believes that the materials disposed of in the permitted pits are responsible for the deterioration of water from her mother's water well. Ms. Garcia feels that the area where she lives has been poisoned by chemicals dumped in the nearby pits. She complained of a burning sensation to her eyes, throat and nose and of breathing problems. She also complained of an offensive odor in the air and the noise from trucks delivering waste to the facility.

The protestants submitted a water analysis taken in May 2000 from Ms. Garcia's water well that found an arsenic concentration below the detection level of 0.010 milligrams per liter. They also submitted a series of water analyses taken from the Trevino water well mentioned above. The arsenic concentration was 0.033 milligrams per liter in May 2000, 0.031 milligrams per liter in April 2001, 0.043 milligrams per liter in May 2005 and 0.024 milligrams per liter in April 2009. In comparison, two water analyses were taken from the Trevino ranch house water well located over one half mile from the Rancho Nuevo Pits. The analyses were taken in May 2000 and April 2009 and showed an arsenic concentration of 0.011 milligrams per liter and 0.007 milligrams per liter, respectively.

Commissioner, Rene M. Perez, made a statement regarding the proposed disposal pit. Commissioner Perez stated that he had visited the disposal site and monitor wells and felt that everything seemed in compliance. However, he was concerned when he started receiving complaints from constituents in the community about sickness, drowsiness and having to haul water for drinking, bathing and washing. He would be interested in seeing a four or five year comparison chart to see if there were any differences in the water that could be the result of chemicals contained in the fluids in the disposal pits.

EXAMINERS' OPINION AND DISCUSSION

The examiners recommend that WTCI's permit be approved. WTCI has shown that operation of the disposal pit will not cause pollution and will provide a more economical means of disposal for water based drilling fluid in this area. The thick caliche and clay soil layers will provide a barrier to prevent migration of disposal fluids to fresh water resources which occur at a minimum depth of 48 to 50 feet. The permit recommended by Environmental Services includes requirements for dikes around the pit, interior berms and closure requirements. The examiners recommend that the permit also include specific provisions regarding the groundwater monitoring wells which WTCI plans to install.

The protestants blame the disposal operations on the MLWT Limited Partnership property for various health problems and bad water quality from their well. Based on the available data concerning arsenic concentrations and the necessity of the waste from the

pits to permeate over 50 feet downward, through layers of caliche and clay to reach the residential water wells, the examiners do not believe that disposal operations on the MLWT Limited Partnership property are responsible for the protestants' health problems or any fresh water pollution. Additionally, the examiners believe that the proper operation of the proposed Hoffman #1 Drilling Fluid Disposal Pit will not pollute fresh water and will prevent waste of oil, gas and geothermal resources by providing a means for disposal of water based drilling fluids necessary to the drilling of additional wells.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice at least ten days prior to the date of hearing.
2. Notice of the application was published twice in *The Freer Press*, a newspaper of general circulation in Duval County, and in the *Alice Echo News Journal*, a newspaper of general circulation in Jim Wells County, on December 31, 2008 and January 7, 2009. A copy of the application was sent by certified mail to the surface owner and all adjacent surface owners.
3. The proposed Hoffman #1 Drilling Fluid Disposal Pit on the MLWT Limited Partnership 631 acre tract is an abandoned caliche pit which covers an area of slightly more than 10 acres.
4. Four other disposal pit permits have already been granted by the Commission on the MLWT property, Rancho Nuevo Pits #1, #2, #3 and BES Pit #1.
 - a. These permits were issued in 1997 and 2002.
 - b. All of the pits were permitted to dispose of water based drilling fluids, except Rancho Nuevo Pit #2 which was permitted to dispose of treated oil and gas waste from a nearby land treatment facility.
 - c. Rancho Nuevo Pits #1 and #2 have already been backfilled and closed, BES Pit #1 is undergoing closure and Rancho Nuevo Pit #3 is currently active.
5. Ms. Garcia lives across FM 1329 from the currently active Rancho Nuevo Pit #3 facility. Ms. Cantu used to live with her mother, Ms. Garcia, but has recently moved away.
6. Ms. Garcia and Ms. Cantu are concerned that operation of pits on the MLWT property have contributed to poor water quality and to health problems experienced by Ms. Garcia.

7. Water analysis taken in May 2000 from Ms. Garcia's water well found an arsenic concentration below the detection level of 0.010 milligrams per liter.
8. Water analyses taken from the Trevino water well showed that the arsenic concentration was 0.033 milligrams per liter in May 2000, 0.031 milligrams per liter in April 2001, 0.043 milligrams per liter in May 2005 and 0.024 milligrams per liter in April 2009.
9. Two water analyses taken from the Trevino ranch house water well located over one half mile from the Rancho Nuevo Pits. The analyses were taken in May 2000 and April 2009 and showed an arsenic concentration of 0.011 milligrams per liter and 0.007 milligrams per liter, respectively.
10. The Primary Drinking Water Standards established by the EPA and TCEQ list the safe level of arsenic at 0.010 milligrams per liter.
 - a. A 2001 EPA Field Investigation Report and a 2004 TCEQ Environmental Trade Fair Presentation document high levels of Arsenic in drinking water across the nation and in the state of Texas, particularly in Duval County.
 - b. The study noted that the arsenic concentration in the public groundwater systems in Duval County ranges between 0.0089 milligrams per liter and 0.058 milligrams per liter.
 - c. The EPA study concluded there were no signs to indicate that the waste in the Rancho Nuevo Facility pits had impacted the water in the resident's wells.
11. In response to landowner complaints of groundwater contamination in the vicinity of the Rancho Nuevo Pits, Commission staff along with the TCEQ performed an investigation.
 - a. A review of analytical records of the arsenic concentration in the treated waste transferred from the land treatment facility to Rancho Nuevo Pit #2 revealed the concentration of arsenic within this waste was less than a quarter of the maximum allowable concentration of arsenic established in the permit.
 - b. Per the pit permit, waste added to Rancho Nuevo Pit #2 from the land treatment facility was required to contain less than 10 milligrams per kilogram of arsenic. The waste actually added to the pit had an arsenic concentration of less than 2.5 milligrams per kilogram.

- c. Groundwater monitoring wells located to the south and east of the BBS Pit, which are between the disposal pit and the private residential water wells to the east, do not reveal elevated levels of nitrates.
 - d. Although arsenic concentrations are not monitored in these wells, analyses from 2002 through 2007 do not show that concentrations of any of the other parameters which are monitored have increased, indicating that the waste within the pit has not infiltrated into the groundwater system.
12. Use of Hoffman #1 Drilling Fluid Disposal Pit as a fresh water based drilling fluid disposal pit will not harm fresh water resources.
- a. An impermeable caliche and clay layer approximately 50 feet thick overlies the groundwater in this area and will serve as a barrier to the migration of water based drilling fluids from the proposed pit into any fresh water strata.
 - b. The minimum depth to useable quality water in this area is 50 feet.
 - c. Installation of four ground water monitoring wells and analysis of water from the wells will insure that useable quality groundwater is not being adversely affected by disposal at the Hoffman #1 Drilling Fluid Disposal Pit.
 - d. The waste added to the proposed pit is not expected to contain arsenic or nitrates in concentrations high enough to cause groundwater contamination.
13. The proper operation of the proposed Hoffman #1 Drilling Fluid Disposal Pit will prevent waste of oil, gas and geothermal resources by providing a means for disposal of water based drilling fluids necessary to the drilling of additional wells.
14. The estimated closure cost of the pit is \$32,000. Financial security in that amount will be required before the pit is put into operation.

CONCLUSIONS OF LAW

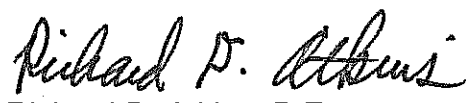
1. Proper notice was issued as required by all applicable codes and regulatory statutes.
2. All things have occurred and been accomplished to give the Commission jurisdiction to decide this matter.

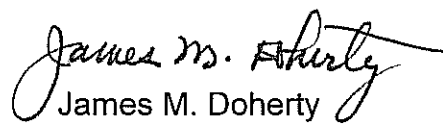
3. WT Construction, Inc.'s application to maintain and use a pit for disposal of water based drilling fluids complies with Statewide Rule 8 and will not cause waste of oil, gas or geothermal resources or pollution of useable quality groundwater.

EXAMINERS' RECOMMENDATION

The examiners recommend that WTCI's application to operate the Hoffman #1 Drilling Fluid Disposal Pit on the MLWT Limited Partnership property be approved, as set out in the attached Final Order.

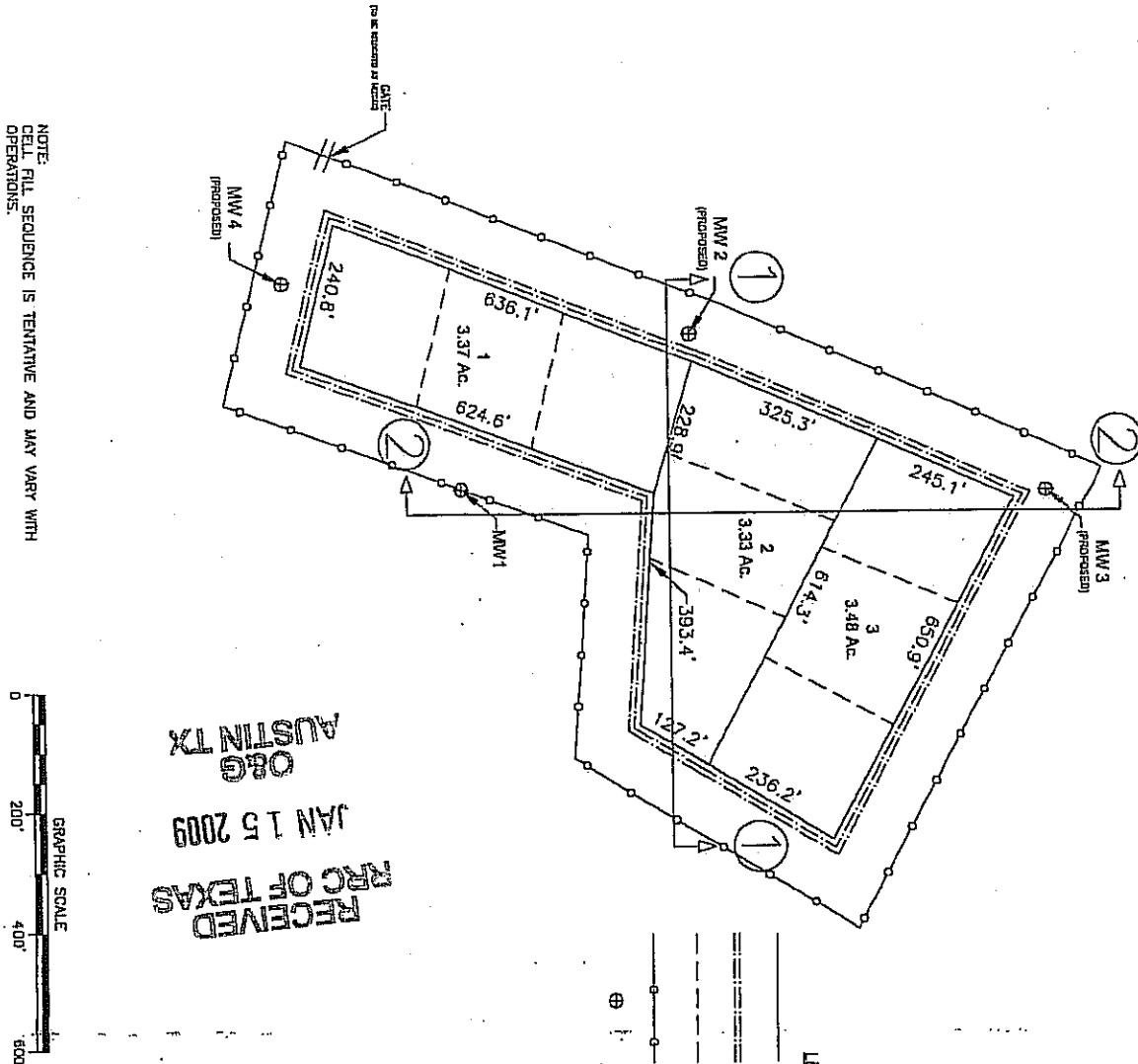
Respectfully submitted,


Richard D. Atkins, P.E.
Technical Examiner


James M. Doherty
Legal Examiner

Appendix A

Permit No. P011507



NOTE:
CELL FILL SEQUENCE IS TENTATIVE AND MAY VARY WITH
OPERATIONS.

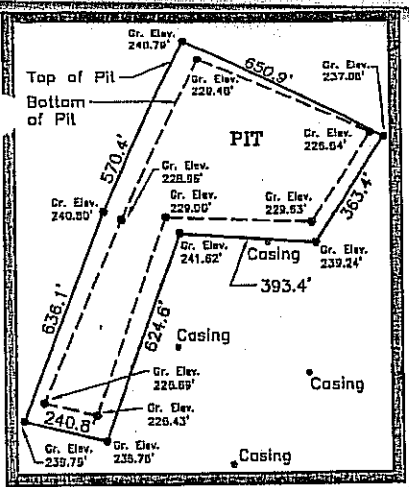


RECEIVED
RRC OF TEXAS
JAN 15 2009
ORG
AUSTIN TX

LEGEND

- CELL OUTLINES
- PERIMETER WATER DIVERSION BERM
- TEMPORARY INTERIOR BERM (AS NEEDED)
- FENCE
- GROUNDWATER MONITORING WELL

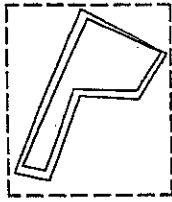
ATTACHMENT 4A	
HOFMAN #1 FACILITY	
SITE LAYOUT	
DUVAL COUNTY, TEXAS	
WPT CONSTRUCTION INC.	
P.O. BOX 1189 PEBBLTON, TEXAS 78375-1189	
PHONE: (361) 348-2519	
DRAWN BY: TE	SCALE AS SHOWN
APPROV. BY: LCA	DATE: 09/21/08
08-708V-Permit Application\dwg\wpt\wpt.dwg	
1 OF 1	SHEET NO.



DETAIL - A
NOT TO SCALE

206 Ac.
W. M. Laughlin
Vol. 239, Pg. 264
D. R., D. C., Tx.

RECEIVED
REC OF TEXAS
MAR 13 2009
O&G
JUSTITIA
630.776 ACRES



"SAN FRANCISCO"
JUAN JOSE MANUEL
DE LA GARZA FALCON
A - 216

1000 Ac.
Ann Hoffman Bayless
Vol. 194, Pg. 190
D. R., D. C., Tx.

Share 3
Vol. "F", Pg. 138
D. R., D. C., Tx.

Share 1 - 3002 Ac.
Charles Stillman
Vol. "F", Pg. 138
D. R., D. C., Tx.

CB: S 05° 30' 07" W
CD: 282.16'
L: 282.44'
R: 1959.86'

SARAH CORKILL
A - 1190

E. C. LASATER
A - 2100

NANCY IRVIN
A - 1350

- ⊙ - Denotes a found 5/8" iron rod
- - Denotes a set 5/8" iron rod with surveyor's cap stamped "RPLS 1907"

- FLOOD ZONE A. Elevations were Determined from VERA TRIG. STA. Elev. of 256.00'

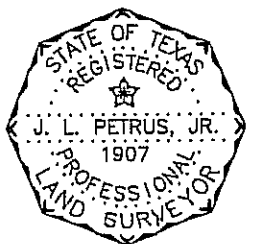
NOTES:

- 1) Bearings are GPS, Texas Coordinate System of NAD 27, Texas South Zone.
- 2) The FEMA flood maps show that the property described herein is located in Flood Zone A & C. Community-Panel No. 480202 0018 A. May 5, 1987.
- 3) There was a notes and bounds description prepared in conjunction with this plat.
- 4) There may be existing pipelines not shown on this plat. Use the Texas One Call System to locate pipelines before performing any excavation on this property.

PLAT SHOWING SURVEY OF A
630.776 ACRE TRACT OF LAND
BEING OUT OF THE
"SAN FRANCISCO"
JUAN JOSE MANUEL
DE LA GARZA FALCON SURVEY
ABSTRACT - 216
DUVAL COUNTY, TEXAS
SCALE 1" = 1000'

I, Julius L. Petrus Jr., Registered Professional Land Surveyor of Texas, do hereby state that this plat represents an actual survey made on the ground, under my direction, to the best of my knowledge and ability, this 27th day of August, 2008.

King & Petrus, Inc.
P. O. Box 606
Sinton, Texas 78387
Phone 361-364-2622
Fax 361-364-2641
C:\RAR\19500\19540



J. L. Petrus Jr.
Registered Prof. Land Surveyor
Texas Registration No. 1907