

API No. <u>42-475-37465</u> Drilling Permit # <u>836656</u> SWR Exception Case/Docket No. _____		RAILROAD COMMISSION OF TEXAS OIL & GAS DIVISION APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER <i>This facsimile W-1 was generated electronically from data submitted to the RRC.</i> <i>A certification of the automated data is available in the RRC's Austin office.</i>				FORM W-1 07/2004 Permit Status: Approved		
1. RRC Operator No. <div style="text-align: center;">003125</div>		2. Operator's Name (as shown on form P-5, Organization Report) <div style="text-align: center;">ABRAXAS PETROLEUM CORPORATION</div>			3. Operator Address (include street, city, state, zip): <div style="text-align: center;">18803 MEISNER DR SAN ANTONIO, TX 78258-0000</div>			
4. Lease Name <div style="text-align: center;">MESQUITE 37</div>			5. Well No. <div style="text-align: center;">102H</div>					
GENERAL INFORMATION								
6. Purpose of filing (mark ALL appropriate boxes): <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <input checked="" type="checkbox"/> New Drill <input type="checkbox"/> Recompletion <input type="checkbox"/> Reclass <input type="checkbox"/> Field Transfer <input type="checkbox"/> Re-Enter </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <input checked="" type="checkbox"/> Amended <input type="checkbox"/> Amended as Drilled (BHL) (Also File Form W-1D) </div>								
7. Wellbore Profile (mark ALL appropriate boxes): <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <input type="checkbox"/> Vertical <input checked="" type="checkbox"/> Horizontal (Also File Form W-1H) <input type="checkbox"/> Directional (Also File Form W-1D) <input type="checkbox"/> Sidetrack </div>								
8. Total Depth <div style="text-align: center;">10900</div>		9. Do you have the right to develop the minerals under any right-of-way ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		10. Is this well subject to Statewide Rule 36 (hydrogen sulfide area)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
SURFACE LOCATION AND ACREAGE INFORMATION								
11. RRC District No. <div style="text-align: center;">08</div>		12. County <div style="text-align: center;">WARD</div>		13. Surface Location <input checked="" type="checkbox"/> Land <input type="checkbox"/> Bay/Estuary <input type="checkbox"/> Inland Waterway <input type="checkbox"/> Offshore				
14. This well is to be located <u>2.98</u> miles in a <u>SW</u> direction from <u>PYOTE</u> which is the nearest town in the county of the well site.								
15. Section <div style="text-align: center;">37</div>		16. Block <div style="text-align: center;">16</div>		17. Survey <div style="text-align: center;">UL</div>		18. Abstract No. <div style="text-align: center;">A-U37</div>		
				19. Distance to nearest lease line: <div style="text-align: center;">200 ft.</div>		20. Number of contiguous acres in lease, pooled unit, or unitized tract: <div style="text-align: center;">640</div>		
21. Lease Perpendiculars: <u>2625</u> ft from the <u>SOUTH</u> line and <u>289</u> ft from the <u>WEST</u> line. 22. Survey Perpendiculars: <u>2625</u> ft from the <u>SOUTH</u> line and <u>289</u> ft from the <u>WEST</u> line.								
23. Is this a pooled unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			24. Unitization Docket No:		25. Are you applying for Substandard Acreage Field? <input type="checkbox"/> Yes (attach Form W-1A) <input checked="" type="checkbox"/> No			
FIELD INFORMATION List all fields of anticipated completion including Wildcat. List one zone per line.								
26. RRC District No.	27. Field No.	28. Field Name (exactly as shown in RRC records)			29. Well Type	30. Completion Depth	31. Distance to Nearest Well in this Reservoir	32. Number of Wells on this lease in this Reservoir
08	80544500	SANDBAR (BONE SPRING)			Oil Well	10900	0.00	1
BOTTOMHOLE LOCATION INFORMATION is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS (see W-1H attachment)								
Remarks [FILER Feb 27, 2018 1:42 PM]: Amending field and TVD					Certificate: I certify that information stated in this application is true and complete, to the best of my knowledge. <div style="display: flex; justify-content: space-between;"> <div> <u>Scarlet Holguin, Regulatory Clerk</u> Name of filer </div> <div> <u>Feb 28, 2018</u> Date submitted </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div> <u>(210)7579844</u> Phone </div> <div> <u>sholguin@abraxaspetroleum.com</u> E-mail Address (OPTIONAL) </div> </div>			
RRC Use Only Data Validation Time Stamp: Mar 1, 2018 3:34 PM('As Approved' Version)								

Permit Status: Approved <i>The RRC has not approved this application. Duplication or distribution of information is at the user's own risk.</i>

**RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION**

APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER

*This facsimile W-1 was generated electronically from data submitted to the RRC.
 A certification of the automated data is available in the RRC's Austin office.*

Permit #	836656
Approved Date:	Mar 01, 2018

1. RRC Operator No. 003125	2. Operator's Name (exactly as shown on form P-5, Organization Report) ABRAXAS PETROLEUM CORPORATION	3. Lease Name MESQUITE 37	4. Well No. 102H
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Lateral Drainhole Location Information

5. Field as shown on Form W-1	SANDBAR (BONE SPRING) (Field # 80544500, RRC District 08)
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6. Section 37	7. Block 16	8. Survey UL / U37	9. Abstract	10. County of BHL WARD
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11. Terminus Lease Line Perpendiculars	2310 ft. from the SOUTH line. and 200 ft. from the EAST line			
12. Terminus Survey Line Perpendiculars	2310 ft. from the SOUTH line. and 200 ft. from the EAST line			
13. Penetration Point Lease Line Perpendiculars	2310 ft. from the SOUTH (SEC 33 line. and 195 ft. from the EAST (SEC 33) line			

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

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RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER <div style="text-align: right;">836656</div>	DATE PERMIT ISSUED OR AMENDED (AMENDED) Mar 01, 2018	DISTRICT <div style="text-align: right;">* 08</div>															
API NUMBER <div style="text-align: right;">42-475-37465</div>	FORM W-1 RECEIVED <div style="text-align: center;">Feb 28, 2018</div>	COUNTY <div style="text-align: right;">WARD</div>															
TYPE OF OPERATION <div style="text-align: center;">NEW DRILL</div>	WELLBORE PROFILE(S) <div style="text-align: center;">Horizontal</div>	ACRES <div style="text-align: right;">640</div>															
OPERATOR <div style="text-align: right;">003125</div> <div style="text-align: center;"> ABRAXAS PETROLEUM CORPORATION 18803 MEISNER DR SAN ANTONIO, TX 78258-0000 </div>		NOTICE This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored. District Office Telephone No: <div style="text-align: right;">(432) 684-5581</div>															
LEASE NAME <div style="text-align: right;">MESQUITE 37</div>		WELL NUMBER <div style="text-align: right;">102H</div>															
LOCATION <div style="text-align: right;">2.98 miles SW direction from PYOTE</div>		TOTAL DEPTH <div style="text-align: right;">10900</div>															
Section, Block and/or Survey <div style="display: flex; justify-content: space-between;"> <div>SECTION ◀ 37</div> <div>BLOCK ◀ 16</div> <div>ABSTRACT ◀ U37</div> </div> <div style="display: flex; justify-content: space-between;"> <div>SURVEY ◀ UL</div> <div></div> <div></div> </div>																	
DISTANCE TO SURVEY LINES <div style="text-align: right;">2625 ft. SOUTH 289 ft. WEST</div>		DISTANCE TO NEAREST LEASE LINE <div style="text-align: right;">200 ft.</div>															
DISTANCE TO LEASE LINES <div style="text-align: right;">2625 ft. SOUTH 289 ft. WEST</div>		DISTANCE TO NEAREST WELL ON LEASE <div style="text-align: right;">See FIELD(s) Below</div>															
FIELD(s) and LIMITATIONS: <div style="text-align: center; padding: 10px;"> * SEE FIELD DISTRICT FOR REPORTING PURPOSES * </div>																	
<table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: left;">FIELD NAME</th> <th style="text-align: left;">ACRES</th> <th style="text-align: left;">DEPTH</th> <th style="text-align: left;">WELL #</th> <th style="text-align: left;">DIST</th> </tr> <tr> <th style="text-align: left;">LEASE NAME</th> <th style="text-align: left;">NEAREST LEASE</th> <th></th> <th style="text-align: left;">NEAREST WE</th> <th></th> </tr> </thead> <tbody> <tr> <td colspan="5" style="padding-top: 20px;"> <p>This well must comply to the new SWR 3.13 requirements concerning the isolation of any potential flow zones and zones with corrosive formation fluids. See approved permit for those formations that have been identified for the county in which you are drilling the well in.</p> <p>The designated interval for one or more of the fields approved in this permit appears to overlap with the designated interval of another field or fields in this district. In the case of conflicting designated intervals you will be required to be consistent in field designation on this lease. Further, if the designated interval overlap of wells on this lease results in an actual or potential double assignment of reservoir and the applicant cannot conclusively demonstrate that there is no double assignment, the permitted well may not be assigned an allowable until the conflict is resolved. Because of the overlapping designated intervals in this area, issuance of this permit does not guarantee that the completion of the well will be approved or that the well will receive an allowable in any given field, even if that field is listed on the approved permit application.</p> </td> </tr> </tbody> </table>			FIELD NAME	ACRES	DEPTH	WELL #	DIST	LEASE NAME	NEAREST LEASE		NEAREST WE		<p>This well must comply to the new SWR 3.13 requirements concerning the isolation of any potential flow zones and zones with corrosive formation fluids. See approved permit for those formations that have been identified for the county in which you are drilling the well in.</p> <p>The designated interval for one or more of the fields approved in this permit appears to overlap with the designated interval of another field or fields in this district. In the case of conflicting designated intervals you will be required to be consistent in field designation on this lease. Further, if the designated interval overlap of wells on this lease results in an actual or potential double assignment of reservoir and the applicant cannot conclusively demonstrate that there is no double assignment, the permitted well may not be assigned an allowable until the conflict is resolved. Because of the overlapping designated intervals in this area, issuance of this permit does not guarantee that the completion of the well will be approved or that the well will receive an allowable in any given field, even if that field is listed on the approved permit application.</p>				
FIELD NAME	ACRES	DEPTH	WELL #	DIST													
LEASE NAME	NEAREST LEASE		NEAREST WE														
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**RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION
SWR #13 Formation Data**

WARD (475) County

Formation	Shallow Top	Deep Top	Remarks	Geological Order	Effective Date
RUSTLER	1,700	1,700		1	12/17/2013
YATES	2,000	2,800		2	12/17/2013
SEVEN RIVERS	2,375	2,375		3	12/17/2013
QUEEN	2,200	3,200		4	12/17/2013
GLORIETA	3,900	4,000		5	12/17/2013
SAN ANDRES	2,000	4,500	high flows, H2S, corrosive	6	12/17/2013
HOLT	4,600	4,800		7	12/17/2013
CLEARFORK	4,500	5,000		8	12/17/2013
DELAWARE	2,300	5,000		9	12/17/2013
TUBB	4,600	5,300		10	12/17/2013
WICHITA ALBANY	6,000	6,200		11	12/17/2013
CHERRY CANYON	4,800	7,800		12	12/17/2013
WADDELL	7,600	9,700		13	12/17/2013
BONE SPRINGS	4,700	9,800		14	12/17/2013
WOLFCAMP	6,000	12,750		15	12/17/2013
MONTOYA	14,500	14,500		16	12/17/2013
PENNSYLVANIAN	7,500	14,900		17	12/17/2013
ATOKA	12,000	15,000		18	12/17/2013
FUSSELMAN	6,400	17,500		19	12/17/2013
DEVONIAN	6,200	17,800		20	12/17/2013
ELLENBURGER	7,900	20,800		21	12/17/2013

The above list may not be all inclusive, and may also include formations that do not intersect all wellbores. Formation "TOP" information listed reflects an estimated range based on geologic variances across the county. To clarify, the "Deep Top" is not the bottom of the formation; it is the deepest depth at which the "TOP" of the formation has been or might be encountered. This is a dynamic list subject to updates and revisions. It is the operator's responsibility to make sure that at the time of spudding the well the most current list is being referenced. Refer to the RRC website at the following address for the most recent information.
<http://www.rrc.texas.gov/oil-gas/compliance-enforcement/rule-13-geologic-formation-info>

GROUNDWATER PROTECTION DETERMINATION

Form GW-2



Groundwater Advisory Unit

Date Issued: 26 February 2018**GAU Number:** 190072**Attention:** ABRAXAS PETROLEUM
18803 MEISNER DR
SAN ANTONIO, TX 78258**Operator No.:** 003125**API Number:**
County: WARD
Lease Name: MESQUITE 37
Lease Number:
Well Number: 102H
Total Vertical Depth: 11500
Latitude: 31.491749
Longitude: -103.130603
Datum: NAD27**Purpose:** New Drill**Location:** Survey-UL; Block-16; Section-37

To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

The interval from the land surface to a depth of 1400 feet, and the Rustler from 1800 to 2200 feet must be protected.

This recommendation is applicable to all wells within a radius of 200 feet of this location.

Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. This recommendation is for normal drilling, production, and plugging operations only. It does not apply to saltwater disposal operation into a nonproductive zone (RRC Form W-14).

This determination is based on information provided when the application was submitted on 02/20/2018. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

Form GW-2 P.O. Box 12967 Austin, Texas 78771-2967 512-463-2741 Internet address: www.rrc.texas.gov
Rev. 02/2014

ABRAXAS PETROLEUM CORP.

LEASE NAME & WELL NO.:
MESQUITE 37 #102H

TOPOGRAPHY & VEGETATION:
NATURAL MESQUITE PASTURE

NEAREST TOWN IN COUNTY:
±2.98 MILES SOUTHWEST FROM PYOTE, TEXAS

DESCRIPTION:
SHL/FTP/LTP/BHL: SECTION 37, BLOCK 16, UNIVERSITY LANDS SURVEY,
PP: SECTION 33, LEE F. FREEMAN SURVEY,
WARD COUNTY, TEXAS

SPECIAL NOTES:

Original Document Size: 8.5"x14"
All Coordinates are in NAD 27 TX-C Zone unless otherwise noted.

CERTIFICATION:
This well location shown on this permit plat was surveyed on the ground under my direct supervision. This plat is for Texas Railroad Commission permit purpose only and should not be considered a boundary survey.



William J. Keating
Texas Reg. No. 5041



2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM
Texas FIRM Registration NO. 10042500
FILE NAME: LO_MESQUITE_37_#102H_REV3

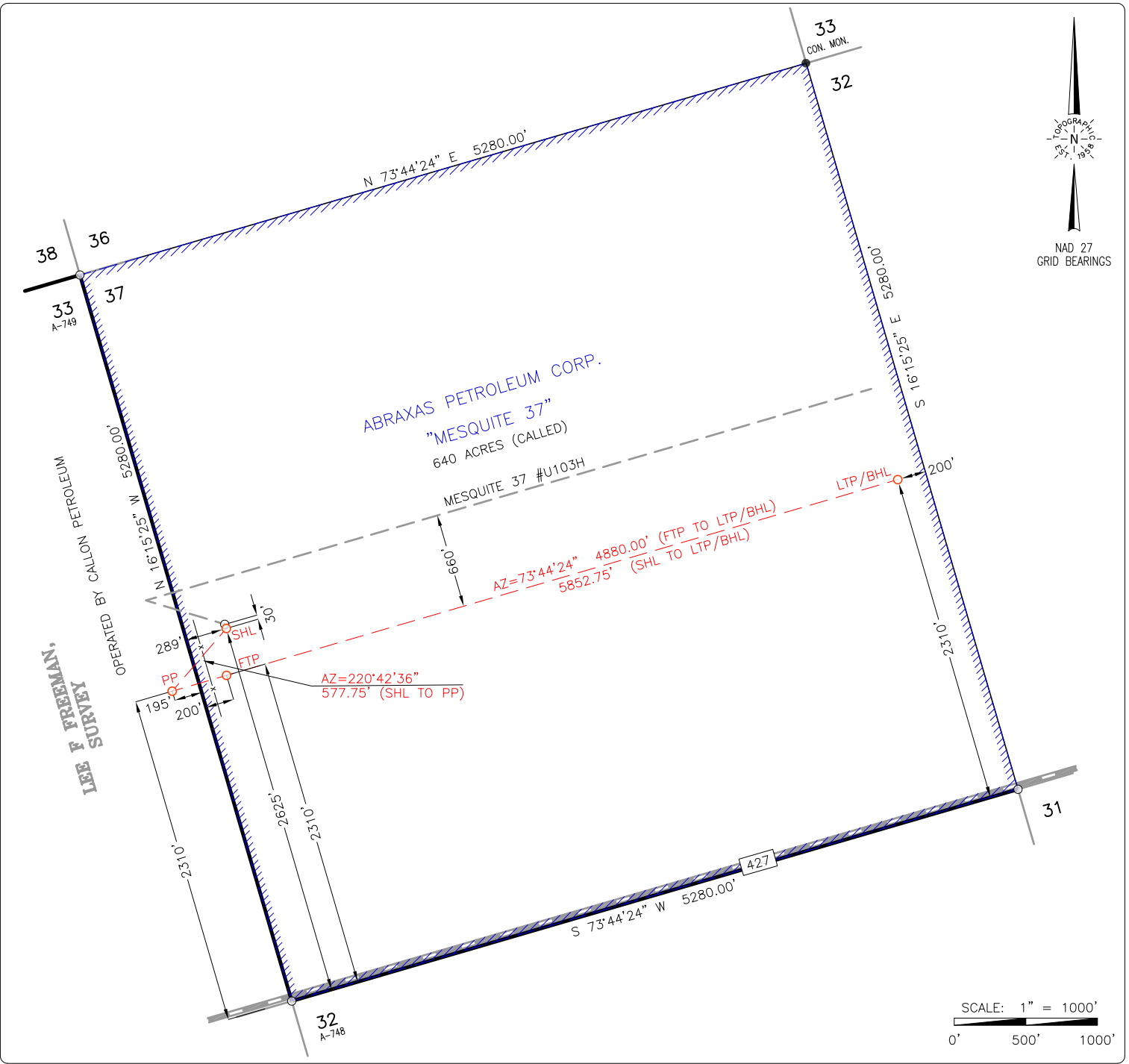
Surface Hole Location:
2625' FSL & 289' FWL (SEC. 37)
SHL Ground Elevation: 2595'
X = 1128196 Y = 674726
LAT.: N 31.4917498 LONG.: W 103.1306032
NAD 83 TX-C ZONE
X = 1424662 Y = 10517302
LAT.: N 31.4918840 LONG.: W 103.1310420

Penetration Point:
2310' FSL & 195' FEL (SEC. 33)
X = 1127819 Y = 674288
LAT.: N 31.4905199 LONG.: W 103.1317765

First Take Point Location:
2310' FSL & 200' FWL (SEC. 37)
X = 1128199 Y = 674399
LAT.: N 31.4908501 LONG.: W 103.1305692

**Last Take Point/
Bottom Hole Location:**
2310' FSL & 200' FEL (SEC. 37)
X = 1132883 Y = 675765
LAT.: N 31.4949285 LONG.: W 103.1156536

- LEGEND
- Section Line
 - Block Line
 - Abstract Line
 - Tract Line
 - Lease Road
 - County Road
 - Unit/Lease Boundary
 - Found Monument
 - Set 1/2" Rebar w/cap
 - Calculated Corner



Surveyed:	10/31/17	COGO:	575-120469	Drawn By:	IG; 11/2/17
Scale:	1"=1000'			Revision:	3(IG)
				Date Revised:	2/15/18