Form 3160-3
(August 2007)

FC ATS-13-955
OI
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs
HOBBS OCD
JAN 08 2014
RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.	NM SWD-1306 NMLC 061936A
6. If Indian, Allotee or Tribe Name	
7. If Unit or CA Agreement, Name and No.	
8. Lease Name and Well No.	Cotton Draw #66 SWD <40322>
9. API Well No.	30-025-22024
10. Field and Pool, or Exploratory	SWD;Bell Canyon-Cherry Canyon <96802>
11. Sec., T. R. M. or Blk. and Survey or Area	Sec. 10, T25S-R32E
12. County or Parish	Lea Co.
13. State	NM

1a. Type of work: ☐ DRILL ☑ REENTER

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☑ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator: Mesquite SWD, Inc. <161968>

3a. Address: P. O. Box 1479, Carlsbad, NM 88221

3b. Phone No. (include area code): 575-706-1840

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface: 2080' FNL & 760' FWL Unit E
At proposed prod. zone: Same

14. Distance in miles and direction from nearest town or post office*: 27 miles west of Jal, NM off CR-1

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	760'	16. No. of acres in lease: NA	17. Spacing Unit dedicated to this well: NA
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	141' P&A	19. Proposed Depth: PBTD 7,000'	20. BLM/BIA Bond No. on file: NMB000612
21. Elevations (Show whether DF, KDB, RT, GL, etc.): GL 3461' KB 3480'		22. Approximate date work will start*: 09/15/2013	23. Estimated duration: 10 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature: Kay Havenor	Name (Printed/Typed): Kay Havenor	Date: 07/08/2013
Title: Agent 575-626-4518		
Approved by (Signature): /S/ STEPHEN J. CAFFEY	Name (Printed/Typed):	Date: JAN - 7 2014
Title: FIELD MANAGER	Office: CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

SWD-1306 Carlsbad Controlled Water Basin

EA # 13-1522

SEE ATTACHED FOR CONDITIONS OF APPROVAL

KR 01/10/14

Approval Subject to General Requirements & Special Stipulations Attached

JAN 13 2014

Mesquite SWD, Inc.
RE-ENTRY PROGRAM

Cotton Draw #66 API: 30-025-22024
Sec. 10, T25S-R32E Lea Co., NM

Supplemental to Form 3160-3, Application for Permit to Re-enter the subject well, Mesquite SWD, Inc submits the following information as per Bureau of Land Management requirements.

1. Geologic Name of Surface Formation

Surface is Quaternary eolian and piedmont deposits (Qep) Holocene to middle Pleistocene. (New Mexico Bureau of Geology and Mineral Resources, 2003, Geologic Map of New Mexico, 1:500,000)

2. Formation Tops and Estimated Fresh Water:

The of geologic markers and estimated depths at which anticipated water, oil or gas formations are expected to be encountered as follows: Sonic log tops in this well.

B/Alluvium	83'	Est: potable water, if present, approx 80'.
Rustler	790'	
Salado	1,153'	
Top main salt	2,338'	
Base of salt	4,430'	
Lamar limestone	4,653'	
Bell Canyon	4,727'	Possible residual hydrocarbons in upper 80'
Cherry Canyon	6,115'	
Brushy Canyon	7,002'	Note: PB TD will be 7000' KB
Bone Springs	8,396'	

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas.

None of the above formations were found to be commercially productive of oil or gas, or are depleted, in the disposal interval of this well or other wells in the NM OCD half-mile area of review above the Brushy Canyon. No fresh water wells are known in the NM OCD 2-mile area of review, none would be expected beneath the Alluvium, however, potential shallow sands are protected by 13-3/8" casing set at 604' and cement circulated to the surface.

4. Casing: NOW in hole, **no casing pulled. JOINT TYPES NOT REPORTED BY TEXACO.**

Hole Size	Casing	Depth Set	Cement	Top Cement
17-½"	13-3/8" H-40 48#	604'	725 sx	Circulated
12-¼"	10-¾" J-55 45.5#	4,980'	2050 sx	Not Circulated
8-¾"	7-⅝" P-110 33.7#	12,913'	2005 sx	3820' TS
NR	5-½" 26# C-75 liner	15,769'	350 sx	12,538'

Minimum Casing Design Factors: Burst 1.0, Collapse 1.125. Tensile unavailable (joint types unknown).

5. **Cement Program:** No cementing is needed or required in this re-entry. Original completion - **no casing pulled.** The following is original Texaco cementing report, no additional info has been found:

13-⅜" Surface casing w/425 sx Trinity Lite Wate, plus 300 sx Class "C" neat. Circulated.
10-¾" Intermediate string First stage 650 sx Trinity Lite Wate and 200 sx Class "C" neat circulated. Second stage (depth NR) 1200 sx Trinity Lite Wate, cement did not circulate.
7-⅝" First stage 600 sx Trinity Lite Wate and 300 sx Class "C". Second stage DV 4,806' w/1105 sx Trinity Lite. TOC 3,820' TS.
5-½" Liner (3,215') Class "C"circulation NR, calculates 45% excess.

Mesquite SWD, Inc will run necessary casing logs and perform cementing as required to insure cement isolation of the salt section.

6. **Proposed Mud Circulation System:**

Drilling and returned circulation will be from and to a closed loop-like system w/surface tanks. No earthen mud or reserves pits will be constructed or used for this re-entry. Drilling fluids and cuttings, if any, will be trucked to a certified disposal facility upon completion of re-entry operations. Cement cuttings will be removed to a certified disposal facility.

7. **Pressure Control Equipment:**

BOP and BPOE are illustrated in Exhibit A and Exhibit A-1 below. BOPE will consist of a double ram-type (5M) preventer and an annular preventer (5000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2. 5000# BOP TESTED TO 3000#. BOP and BPOE will be tested to 3000 psi on 13⅜" casing and on 10¾" casing held for 30 minutes after drilling-out the surface plug.

BOP will be operationally checked each 24 hour period. BOP will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and a 3" choke line will be included in the drilling spool located below the BOP. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold with 5000 psi working pressure rating.

Vent line will extend to pad margin to provide sufficient distance, approximately 150' to flare boom, from any ignition source in the event natural gas should be encountered. No gas was encountered to TD in the original drilling of the hole. Additionally, the entire hole is cased and cemented.

8. **Estimated BHP:** At the top of original cased-hole cement plug on CIBP at 12,250' in the 7-⅝" the estimated BHP will be 5512 psi.

9. **Mud Program:** Hole is cased, but necessary mud for abnormal situations will be on hand.

Depth	Mud Wt.	Viscosity	Fluid Loss	Type Mud
0 - 12,250'	8.4 - 8.5	30 - 32	NC	Fresh water

Fresh water will be used for the re-entry mud system, approximately 0.431 lbs/ft or greater. The closed-loop mud system and equipment will be monitored visually to determine volume changes and mud condition as per Onshore Order 1 requirements. Mud will be on location in the event of unusual conditions.

10. Auxiliary Well Control and Monitoring Equipment:

a. A Kelly cock will be in the drill string at all times.
b. H_2S detection equipment will be in operation during the drilling operation. H_2S is not considered a potential hazard because it was not reported in the original drilling and the entire hole is cased and cemented.

11. Logging, Coring, and Testing Program:

No formation logging, coring, or testing is anticipated.

12. Potential Hazards:

No abnormal pressures or temperatures were reported in the original drilling operations. No H_2S was encountered in the original drilling operations. All personnel will be familiar with all aspects of safe operation of equipment being used to re-enter this well.

13. Anticipated Starting Date and Duration of Operations:

Road and location remediation will begin as soon as the BLM approves the APD. Move-in and re-entry is expected to require approximately 15 days.

14. Anticipated Starting Date and Duration of Operations:

Road and location repair will begin after the BLM has approved the APD. Re-entry date will follow as soon as rig/work-over unit and equipment are available. Re-entry, well preparation for injection, and lease clean-up are expected to require approximately 15 days.

Addendum: Non-productive zones

Many wells in the surrounding area have tested, completed in and/or depleted the upper Ramsey of the Bell Canyon in the AOR, including the drill site acreage. Numerous deeper wells have drilled, evaluated and/or tested the sub-Ramsey/Olds Bell and the Cherry Canyon in the greater area and have been unable to demonstrate production or commercial potential. The subject re-entry was an exploratory test well for the above zones and down into the Morrow. This test well did not report shows or commercial potential below the Ramsey/Olds or above the Brushy Canyon. This re-entry will isolate both the Ramsey/Olds interval above as well as the underlying Brushy Canyon where some hydrocarbon potential may present an exploration target for horizontal drilling.

Mesquite SWD, Inc.
Cotton Draw #66
2080' FNL & 760' FWL
Sec. 10, T25S-R32E Lea Co., NM

API 30-025-22024

Addendum: Well Diagrams

PLUG AND ABANDON WELL DIAGRAM

API: 3002522024
Operator: Texaco, Inc
Lease: Cotton Draw Unit Well No: 66
Location: Sec 10, T25S-R32E Lea Co., NM
Footage: 2080 FNL, 760 FWL

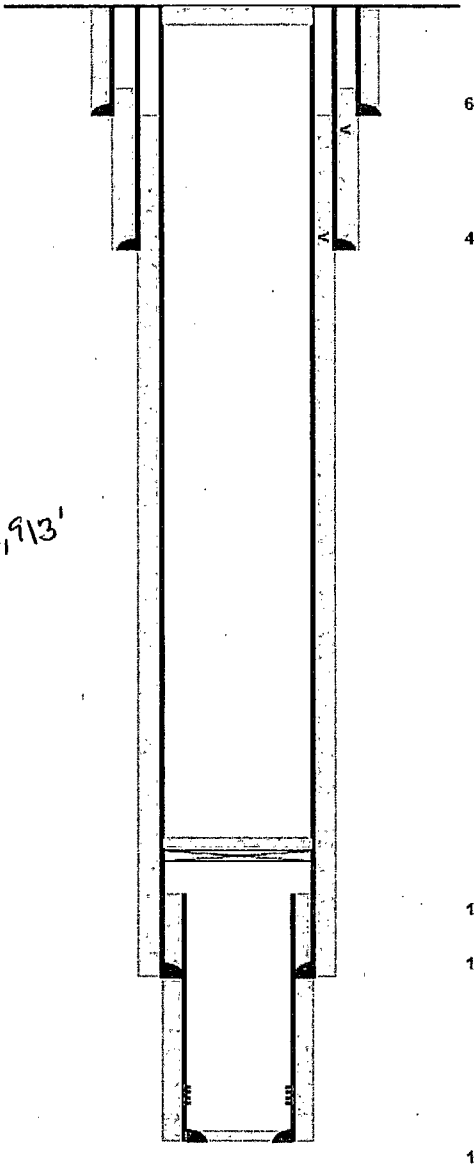
KB: 3480
GL: 3461
Spud date: February 20, 1967
Plugged : July 25, 1968
MSL of TD: -12289

Surface Csg
Size: 13-3/8" 48#
Set @: 604
Sxs cmt: 725
Circ: Yes
TOC: Surf
Hole Size: 17-1/2"

Intermediate Csg
Size: 10-3/4" 45.5# J-55
Set @: 4,980
Sxs cmt: 2050
Circ: No
TOC: NR
Hole Size: 12-1/4"

Production Csg
Size: 7-5/8" 33.7# P-110
Set @: ~~11913~~ 12,913'
Sxs cmt: 2005
Circ: No
Hole Size: 8-3/4"

Production Liner
Size: 5-1/2" 26# C-/5
Set @: 12538-15769'
Sxs cmt: 350
Circ: NR-Calc 45% excess
Hole Size: Est 6-5/8"



Not to Scale

0 Circ 20 sxs 80' to surface
TOC on 10-3/4" NR
604 13-3/8" 48# H-40
DV 10-3/4" depth not reported
TOC 7-5/8" 3820' TS
B/Salt 4430'
Top Lamar Ls 4653'
4980 DV @ 4806'

Top Brushy Canyon 6995'

Top Bone Springs 8600'

CIBP 12250 w/40 sx 12250-12450
12538 5-1/2" liner w/350 sx
12913 Base 7-5/8" Stage 1: 900 sx, Stage 2: 1105 sx
7-5/8" DV depth NR
Top Penn 13426

Perfs Morrow 14692-15102 (OA)
Dry in tests
15769 PBTD 15722

Proposed Re-completion of Cotton Draw #66 for SWD

RECOMPLETION FOR SWD WELL DIAGRAM

API: 3002522024
Operator: Mesquite SWD, Inc.
Lease: Cotton Draw Well No: 66
Location: Sec 10, T25S-R32E Lea Co., NM
Footage: 2080 FNL, 760 FWL

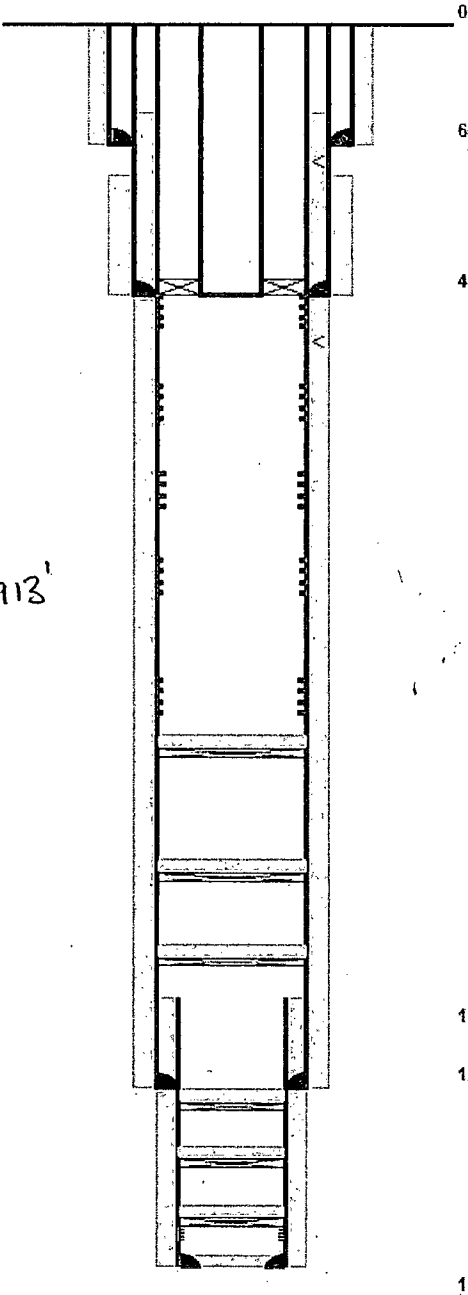
KB: 3480
GL: 3461
Spud date: February 20, 1967
Plugged : July 25, 1968
MSL of TD: -12289

Surface Csg
Size: 13-3/8" 48#
Set @: 604
Sxs cmt: 725
Circ: Yes
TOC: Surf
Hole Size: 17-1/2"

Intermediate Csg
Size: 10-3/4" 45.5# J-55
Set @: 4,980
Sxs cmt: 2050
Circ: No
TOC: NR
Hole Size: 12-1/4"

Production Csg
Size: 7-5/8" 33.7# P-110
Set @: ~~11913~~ 12913'
Sxs cmt: 2005
Circ: No
Hole Size: 8-3/4"

Production Liner
Size: 5-1/2" 26# C-/5
Set @: 12538-15769'
Sxs cmt: 350
Circ: NR-Calc 45% excess
Hole Size: Est 6-5/8"



Not to Scale

0
Circ 20 sxs 80' to surface
TOC on 10-3/4" NR
604 13-3/8" 48# H-40
DV 10-3/4" @3030'
TOC 7-5/8" 3820' TS
B/Salt 4430'
Top Lamar Ls 4653'
4980 Top Bell Canyon 4727
Pkr @4980'
DV @ 4806'

Perf interval 4980' - 6904' (OA)

Top Cherry Canyon 6115'

See COA

Top Brushy Canyon 6995' CIBP w/150 sx Tag

Top Bone Springs 8800' ~~CIBP w/150 sx~~ See COA

~~CIBP 12250 w/40 sx 12250'-12450'~~ ✓

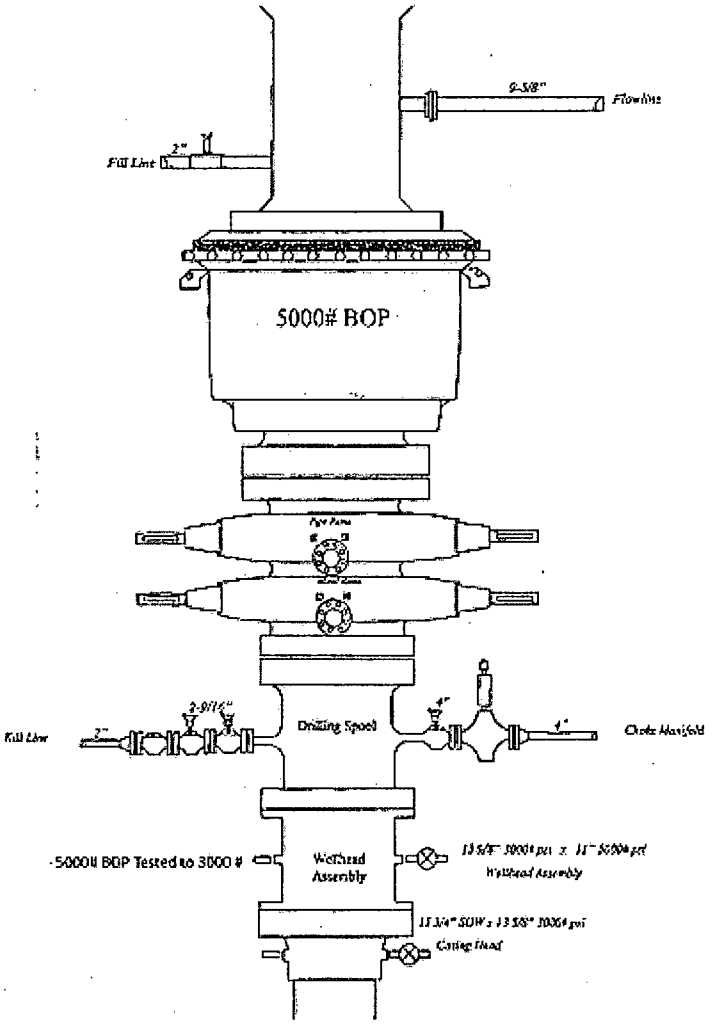
12538 5-1/2" liner w/350 sx

12913 Base 7-5/8" Stage 1: 900 sx, Stage 2: 1105 sx
Top Penn ~~13426' CIBP w/25 sx~~ See COA

Top Atoka 14122' CIBP w/25 sx ✓

CIBP 14625' w/25 sx ✓
Perfs Morrow 14692'-15102' (OA)
15769 PBTD 15722'

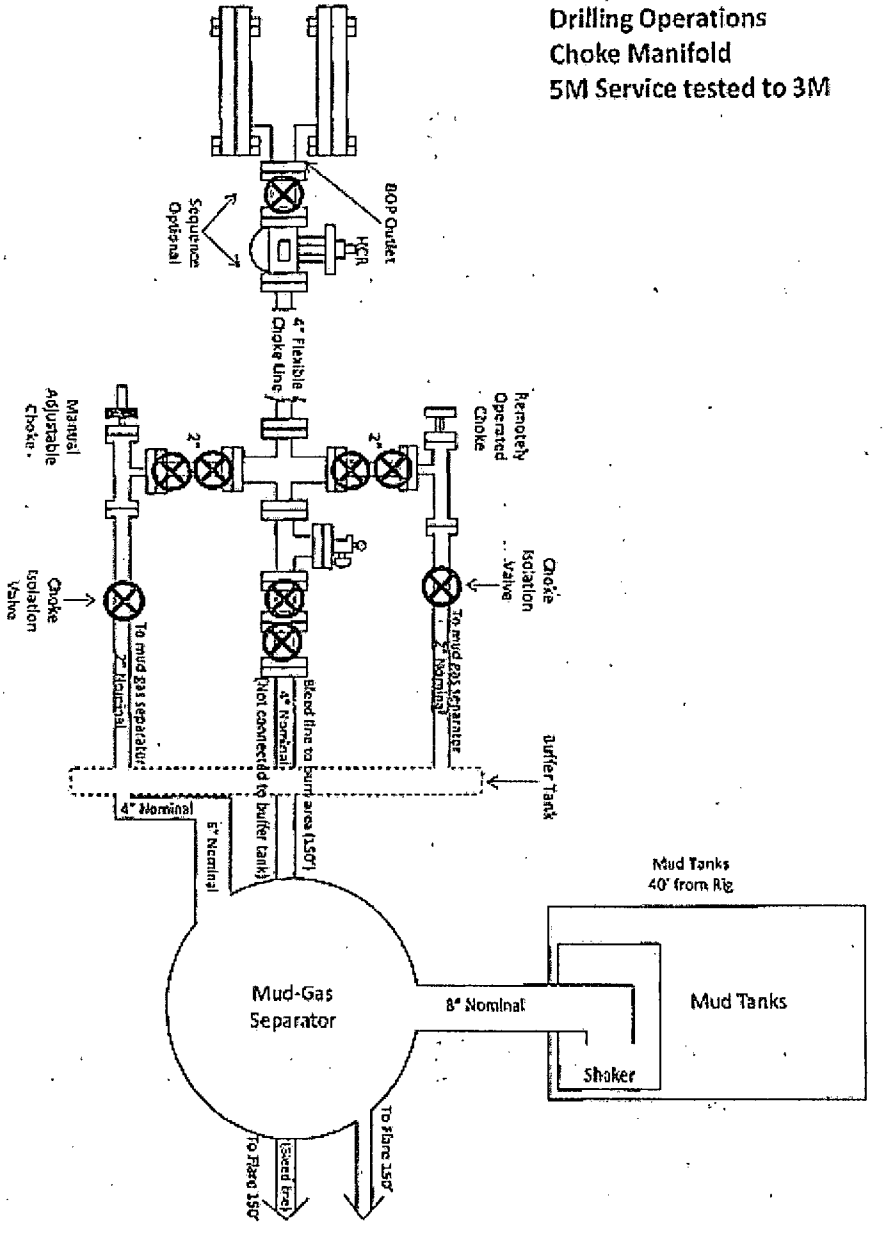
Exhibit A - 5M BOP



5000# BOP Tested to 3000#
Cotton Draw #66
Mesquite SWD, Inc.
Sec. 10, T25S-R32E Lea Co., NM
SHL & BHL 2080' FNL & 760' FWL

Exhibit A-1

Exhibit A-1 - Choke Manifold Diagram
Mesquite SWD, Inc.
Cotton Draw #66
Sec. 10, T25S-R32E, Lea Co., NM
SHL & BHL 2080' FNL & 760' FWL



Cotton Draw 66
H_2S Pad Diagrammatic
Exhibit B