

District I  
1625 N French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-101  
June 16, 2008

Submit to appropriate District Office

☐ AMENDED REPORT

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

<sup>1</sup> Operator Name and Address Marbob Energy Corporation, P.O. Box 227, Artesia, NM		<sup>2</sup> OGRID Number 14049
<sup>3</sup> Property Code 38232		<sup>4</sup> API Number 30-025-26703
<sup>5</sup> Property Name Lear State SWD		<sup>6</sup> Well No. 3
<sup>9</sup> Proposed Pool 1 SWD, Strawn		<sup>10</sup> Proposed Pool 2 96188

<sup>7</sup> Surface Location									
UL or lot no J	Section 32	Township 18S	Range 32E	Lot Idn	Feet from the 1980'	North/South line South	Feet from the 1980'	East/West line East	County Lea

<sup>8</sup> Proposed Bottom Hole Location If Different From Surface									
UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

<sup>11</sup> Work Type Code E					<sup>12</sup> Well Type Code S		<sup>13</sup> Cable/Rotary		<sup>14</sup> Lease Type Code S		<sup>15</sup> Ground Level Elevation 3690.2	
<sup>16</sup> Multiple		<sup>17</sup> Proposed Depth 13,110'			<sup>18</sup> Formation Strawn			<sup>19</sup> Contractor		<sup>20</sup> Spud Date August 1, 2010		

**<sup>21</sup> Proposed Casing and Cement Program**

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 1/2"	13 3/8"	48	428'	425	Circ. Cmt.
12 1/4"	9 5/8"	40	4245'	2200	Circ. Cmt.
8 3/4"	5 1/2"	17, 20, 23	13,110'	4065	1880'

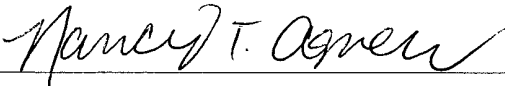

<sup>22</sup> Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary

See Attached Procedure

Name Changed From "Lusk 32 SWD #1"  
Name changed to "Lear State SWD #3"

**Permit Expires 2 Years From Approval  
Date Unless Drilling Underway  
Re-Entry**

SWD-1223

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature: 		Approved by: 	
Printed name: Nancy T. Agnew		Title: PETROLEUM ENGINEER	
Title: Land Department		Approval Date: JUL 08 2010 Expiration Date:	
E-mail Address: landtech@marbob.com			
Date: 7/1/10	Phone: 575-728-3303	Conditions of Approval Attached <input type="checkbox"/>	

# RECEIVED

## NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

JUL 06 2010

All distances must be from the outer boundaries of the Section

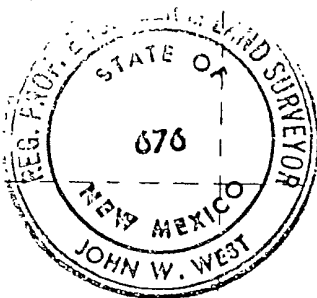
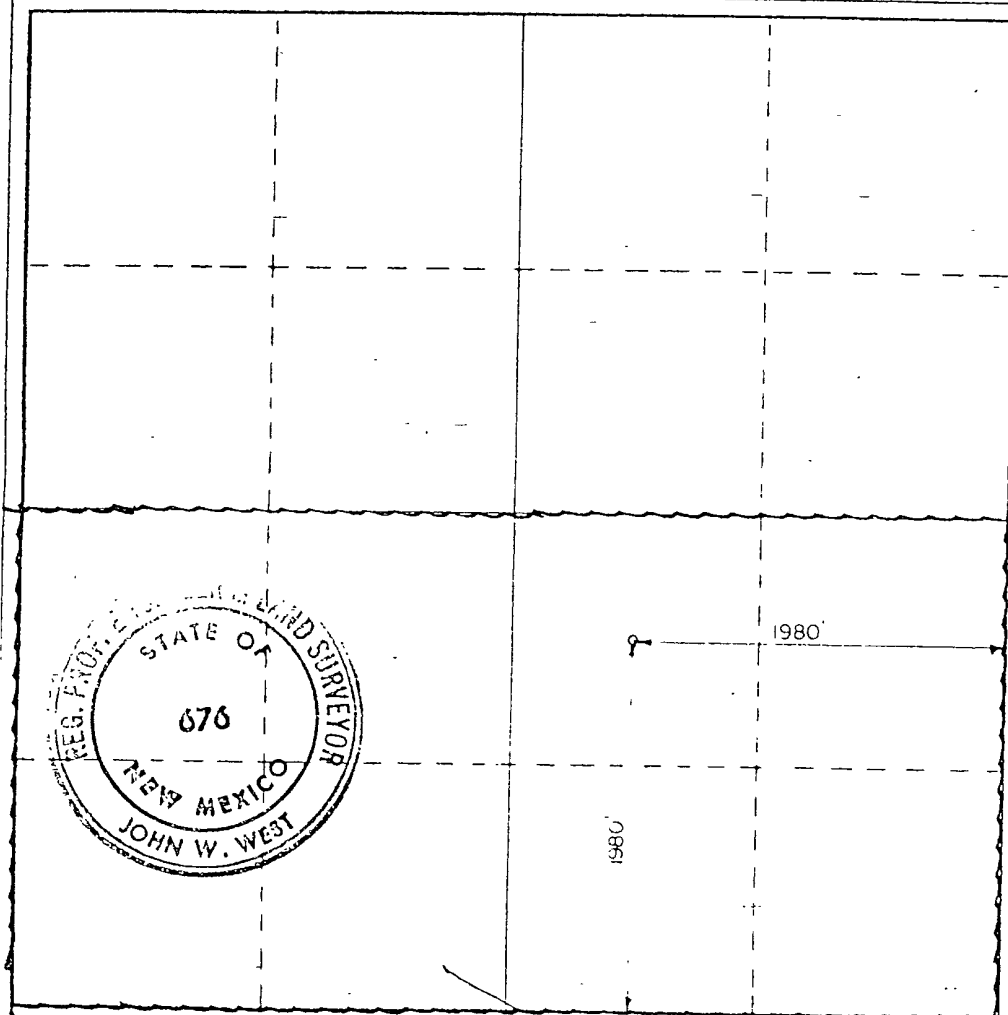
Operator Marbob Energy Corporation		Lease Lear State SWD		Well No. 3
Unit Letter J	Section 32	Township 18 South	Range 32 East	County Lea
Actual Footage Location of Well:				
1930 feet from the South		1980 feet from the East		
Ground Level Elev. 3690-2	Producing Formation Strawn	Pool SWD; Strawn	Dedicated Acreage: 320 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



### CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

*Nancy T. Agnew*

Name  
Nancy T. Agnew

Position  
Land Department

Company  
Marbob Energy Corporation

Date  
7/1/10

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief

Date Surveyed

2-4-1980

Registered Professional Engineer  
Min. Land Surveyor

*John W. West*

Certificate No. JOHN W. WEST 676  
PATRICK A. ROMERO 6863  
Ronald J. Eidson 3239

0 330 660 990 1320 1650 1980 2310 2640 2970 3300 3630 3960 4290 4620 4950 5280 5610 5940 6270 6600 6930 7260 7590 7920 8250 8580 8910 9240 9570 9900 0

**RECEIVED**

**JUL 06 2010**

**HOBBSOCD**

**Lear State SWD 3  
(Permitted as Lusk 32 SWD 1)  
(formerly Chevron St HU 1)  
1980' fsl, 1980' fel  
J-32-18s-32e  
Lea Co., NM  
30-025-26703**

**Reentry/SWD Conversion Procedure  
1 Jul 10**

**Basic Data:**

13-3/8" @ 428' Circ. Cmt.

9-5/8" @ 4245' Circ. Cmt.

5-1/2" @ 13110', TOC @ 1880' TS, Cut and Pulled @ 1800'

Records show 5-1/2"/17,20 and 23 ppg casing run—don't have any information on setting depths of various weights casing or their grade and connection.

5-1/2"/17ppf Nom. ID=4.892" Drift ID=4.767" (.0232 B/F)

5-1/2"/20ppf Nom. ID=4.778" Drift ID=4.653" (.0221 B/F)

5-1/2"/23ppf Nom. ID=4.670" Drift ID=4.545" (.0211 B/F)

**Objective:** Reenter well and convert to Strawn SWD. See wellbore schematic. Give OCD Hobbs 24 hrs notice to witness MIT after running injection packer and tubing (Order SWD-1223). Injection pressure limit = 2317 psi.

**Procedure:**

1. Dig out cellar, dress off 9-5/8" stub, weld extension onto 9-5/8", install 9-5/8" x 11" 3000 casing head (or similar) onto 9-5/8", and plumb one side outlet to surface. Tape up exposed casing and wellhead equipment and fill cellar with gravel.
2. Set anchors, MIRU WSU, reverse unit and other reentry equipment. NU BOP and basic choke manifold routed to flowback tank and test pipe rams and blind rams to 300 psi for 30 minutes then 2000 psi for 30 minutes.
3. Take delivery of 2-7/8" L80/N80 work string and DCs. Pick up 8.75" bit and drill out plugs shown below with fresh water.

170 sx. surface plug 0-475'

50 sx. stub plug 1658-1800' (top of 5-1/2" casing stub)

4. Pick up 4.75" bit and drill out rest of stub plug 1800' to 1860'. Circulate hole clean and TOOH.

5. RIH with dress off mill with pilot mill extension and dress off 5' of 5-1/2" casing stub. RIH with washover mill and extension and dress off 5' between 5-1/2" and 9-5/8". Circulate clean and TOOH.
6. RU casing running and handling equipment. RIH with 6-5/8" x 5-1/2" or 7" x 5-1/2" slip joint or Bowen Lead Seal Cementing Casing Patch on 5-1/2"/17ppf/J55/LTC casing. Land casing on stub at approx. 1800', pump 400 sx. Class "C" neat, drop plug, displace cement to approx. 1750', clean out cellar and side outlet on 9-5/8" head if needed, install slips/packoff, WOC, install 11" 3000 x 7-1/16" 3000 wellhead.
7. NU BOP equipment, RIH with 4-5/8" bit and drill out plugs with fresh water as shown below.

?? sx. plug 1750-1800' tieback (test casing to 1000 psi)

100 sx. plug 3970-5000' (test casing to 1000 psi)

CIBP at 5000'

CIBP at 9000'

25 sx. plug ???-10395'

8. RIH and tag CIBP + 25 sx cement 11995' (est tag at 11740', clean out to 11900', circulate well clean and TOOH. Pick up a scraper and RIH with bit and scraper to 11900'.
9. RIH with cement retainer, set retainer approx. 9300', pump tubing volume, sting into retainer, establish injection rate and squeeze Bone Spring 9370-9420' with 100 sx Class H with fluid loss. Have extra Class H neat on hand in case need to resqueeze. When squeeze obtained, sting out of retainer, reverse excess cement out of tubing and POOH.
10. RIH with cement retainer, set retainer approx. 5000', pump tubing volume, sting into retainer, establish injection rate and squeeze San Andres 5040-5100' with 100 sx Class H with fluid loss. Have extra Class H neat on hand in case need to resqueeze. When squeeze obtained, sting out of retainer, reverse excess cement out of tubing and POOH.
11. WOC 24-36 hours, drill out retainer and cement at 5000', test squeeze to 1000 psi, drill out retainer at 9300', test squeeze to 1000 psi, push any junk down to 11900', circulate well clean and POOH. If well doesn't test to 1000 psi, will likely use packer/RBP to isolate leak(s) and squeeze leaks as needed—let's discuss.
12. RU lubricator, run GR/CCL Log from 11900' to 11300' then perf Strawn with one shot at the depths shown below (inclusive) using 4" casing gun.  
  
Strawn: 11586-11650', 11658-11682', 11698-11724', 11744-11778', 11806-11838',  
11852-11860' (218) OH Log
13. RIH with packer to 11880', test CIBP to 3000 psi, pull up to 11850', spot 250 gals NE Fe 15% HCl acid, pull packer to 11500', reverse 10 bbls water down annulus, set packer and acidize 11586-11860' (218) with 20000 gals NE Fe 15% HCl acid at 5-7 bpm while

limiting treating pressure to 5500 psi and holding 1000 psi on annulus. Drop 5 slugs of 50 ball sealers (250) through job. Over flush with a couple of transport loads of fresh or produced water. Bleed down, unseat packer, knock balls off perfs and TOOH laying down work string.

14. Pick up nickel plated injection packer on 2.875"/6.5/L80/EUE Duoline 20 or CLS Glassbore internally lined tubing and RIH to 11540'. Reverse circulate the annulus full of clean inhibited packer fluid (175 bbls annular volume), set packer, test annulus to 500 psi for 30 minutes and record the data on a chart for submission to OCD. OCD must be given 24 hrs notice to witness this test. Plumb tubing x casing annulus so that pressure can be monitored at surface. Limit injection pressure to 2317 psi using a pressure limiting device.

Kbc/lusk 32 swd 1

30-025-26703

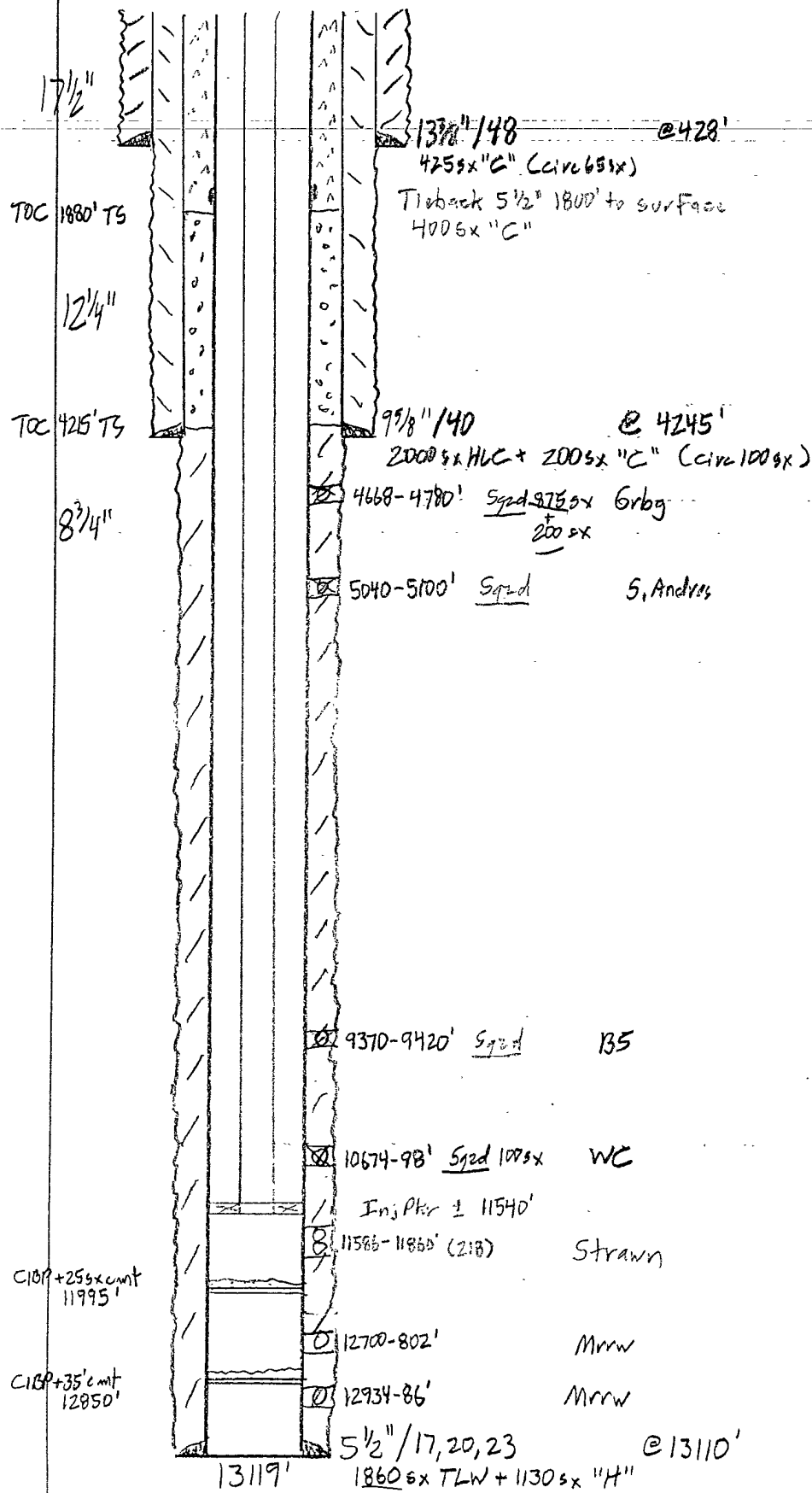
Leas State SWD 3  
(Orig. Lusk 32 SWD 1)

SWD -1223

1980' FSL, 1980' FEL

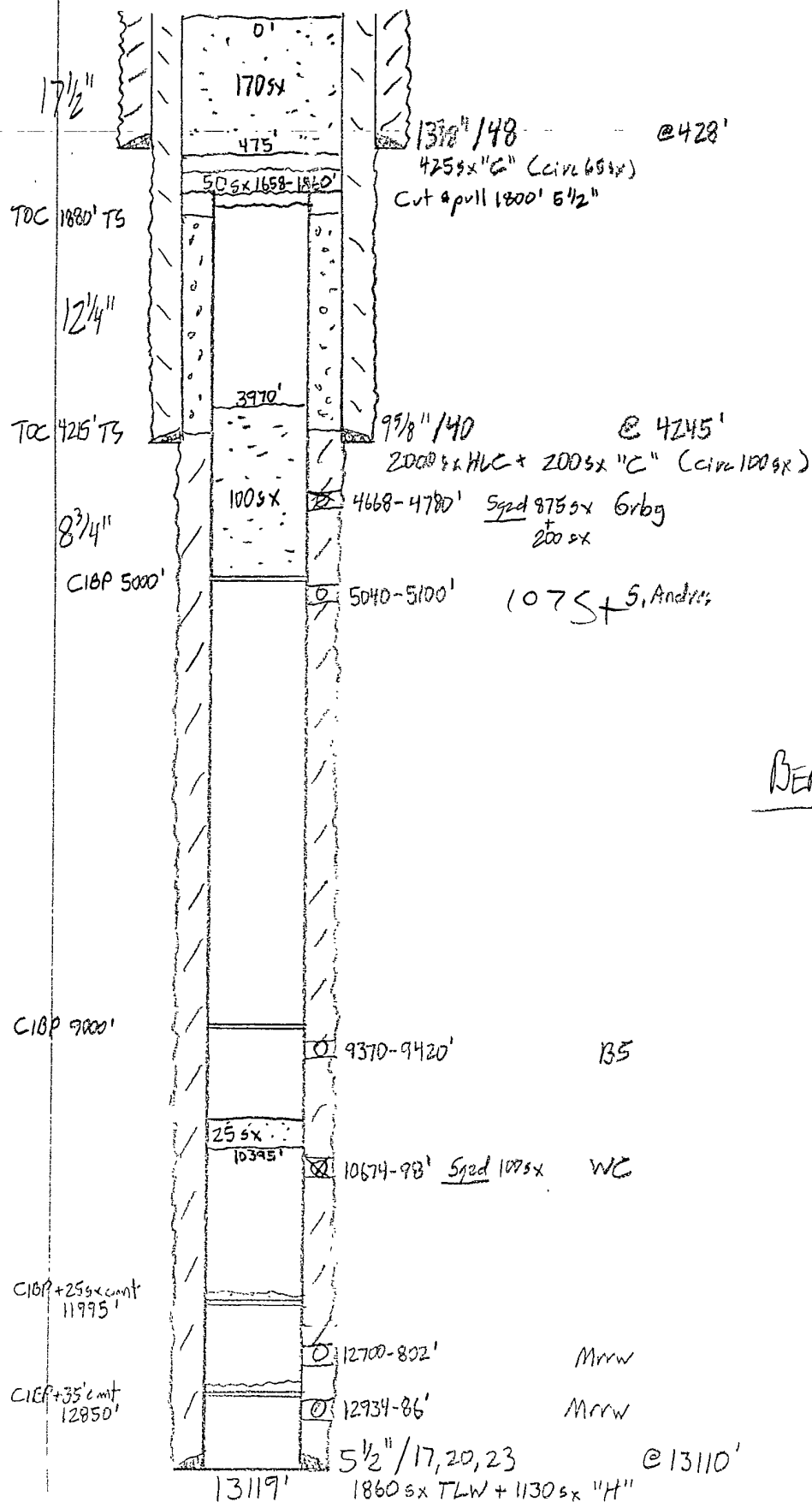
J-32-18g-32e

Leas NM

AFTER

30-025-26703

State HV-1  
1980' FSL, 1980' FEL  
J-32-18g-32e  
Lea NM



BEFORE