

OCD Copy
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

I&E-CFO

PLUGGING
REPORT
ENTERED
FORM APPROVED
OM B No. 1004-0137
Expires: March 31, 2007ENTERED
10/30/04

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other2. Name of Operator
Marbob Energy Corporation3a. Address
PO Box 227, Artesia, NM 88211-02273b. Phone No. (include area code)
505-748-33034. Location of Well (Footage, Sec., T., R., M., or Survey Description)
330 FSL 330 FEL, Sec. 11-T17S-R29E, Unit P

5. Lease Serial No.

NMLC058362

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

NMNM111789X

8. Well Name and No.

Dodd Federal Unit #12

9. API Well No.

30-015-02950

10. Field and Pool, or Exploratory Area

Grbg Jackson SR Q Grbg SA

11. County or Parish, State

Eddy Co., NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Plug and abandon as follows:

Notify BLM 24 hours before starting plugging operation.

1. POOH w/ pkr & tbg.

2. Shoot 4 sqz holes @ 895' (50' below base salt @ 845').

3. Set CIBP on tbg @ 2450'. Spot 10 sx Class "C" neat cmt on top of CIBP. Pull up to 2100' & circ well bore full of 9 ppg brine mixed w/ 25 sx per 100 bbs of salt gel (appx 35 bbls csg volume).

4. Pull tbg to 745'. Pump 45 sx Class "C" + 2% CaCl2 to the end of the tbg (placing cmt inside & outside the csg). TOOH w/ tbg, load csg. WOC a couple of hours & tag cmt w/ tbg.

5. Shoot 4 sqz holes @ 525' (50' below 8 5/8" shoe @ 475'). Pump 45 sx Class "C" + 2% CaCl2 down 5 1/2" csg & up 8 5/8" x 5 1/2" annulus to fill the well from 525' to 425' w/ cmt. WOC a couple of hours, then tag plug.

6. Shoot 4 deep penetrating sqz holes @ 200' (above calculated TOC behind 8 5/8"). Pump 175 sx Class "C" + 2% CaCl2 down 5 1/2" csg & up 8 5/8" x 5 1/2" annulus & outside 8 5/8" to fill well from 200' to surface w/ cmt.

7. Cut wellhead & csg off 3' below ground level & remove. Weld plate onto 8 5/8" stub. Weld 4" dry hole marker onto plate such that 4' of it is above ground level.

8. Cut off anchors & reclaim location per BLM specs.

SEE ATTACHED FOR
CONDITIONS OF APPROVALAccepted for record
NMOCD14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Diana J. Briggs

Title Production Analyst

Signature

Date

06/13/2006

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Alexis L. Swoboda

PETROLEUM ENGINEER

Title

Date

JUN 19 2006

Conditions of approval, if any, are attached. Approval of this notice 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.

Office

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.

(Instructions on page 2)

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT



INSPECTION RECORD - ABANDONMENT

Lease No./Unit/CA NMNM111789X	State NM	District CARLSBAD FIELD OFFICE	Field Area SQUARE LAKE
Well Name: DODD FEDERAL UNIT	Well Number: 12	Hazard? No	
API No. 300150295000S1	Location 1/4, 1/4, S-T-R (Lat/Long) SESE 11 17S 29E	Spud Date 09/17/1958	Status WIW
Operator/Representative MARBOB ENERGY CORPORATION		Rig/Contractor/Representative PETE MAYO MARRS	

Well Type: (Circle One) Dry Hole Depleted Producer Service Water Well Etc. INS WELL

INSP. TYPE	ACT. CODE	INSPECTOR	OPEN DATE	CLOSED DATE	OFFICE TIME	TRAVEL TIME	INSPECT. TIME	TRIPS
PD	PD	CARTER	10-24-06	10-26-06		2		
	HS							

PLUGGING OPERATIONS	WITNESSED		
	YES	NO	N/A
1. Plugs spotted across perforations if casing set?	1		
2. Plugs spotted at casing stubs?			1
3. Open hole plugs spotted as specified?			1
4. Retainers, bridge plugs, or packers set as specified?	1		
5. Cement quantities as specified?	1		
6. Method of verifying and testing plugs as specified?	1		
7. Pipe withdrawal rate satisfactory after spotting plugs?	1		
8. All annular spaces plugged to surface?			
9. INC issued?		1	

Plug Tested: ☐ No ☐ Pressured ☐ Tagged

If tested, which plug(s): _____

Bottom Plug: Type Plug _____ Depth(s) _____ Amount of Cement _____

Stub Plug: Type Plug _____ Depth(s) _____ Amount of Cement _____

Intermediate Plug: Type Plug _____ Depth(s) _____ Amount of Cement _____

Surface Shoe Plug: Amount of Cement _____ Top of Plug _____

Other: Type of Plug _____ Depth(s) _____ Amount of Cement _____

Cement and mechanical plug placement data(attach service company report, if available): _____

Remarks: _____

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BALANCE PLUG PROGRAM

CALCULATION

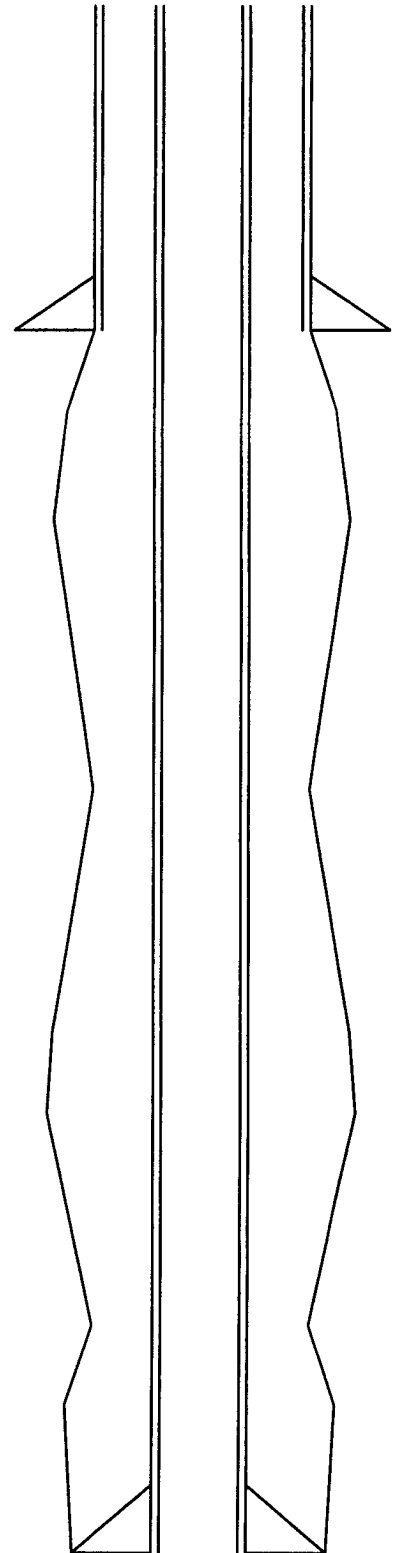
	Size	Weight	cf/lf	lf/cf	bbl/ft	ft/bbl
Hole/Casing						
Casing						
Tubing/D.P.						
Annular Volume						

Plug Set at _____ Size of Plug _____
 H₂O Ahead _____ bbl Cement Class _____ Additions _____
 H₂O Req: _____ gal/sk _____ cf/sk
 Slurry Wt: _____ lbs/gal _____ lbs/cf
 Slurry Vol: _____ cf/sk
 CEMENT VOLUMES: _____ cf _____ bbls
 Hole cap (cf/lf) x size of plug = cf x .1781 = bbls
 SACKS OF CEMENT: _____ sks
 Cmt vol (cf) / slurry vol (cf/sk)
 MIXING H₂O REQUIRED: _____ bbls
 Skes of cmt x H₂O req (gal/sk = gallons / 42)
 H₂O BEHIND: _____ bbls
 Annular vol (ft/bbl) x H₂O ahead = _____ x tubing/D.P.(bbl/ft)
 DISPLACEMENT: _____ bbls
 Top of plug x tubing/D.P.(bbl/ft) = _____ tubing volume

CALCULATION

	Size	Weight	cf/lf	lf/cf	bbl/ft	ft/bbl
Hole/Casing						
Casing						
Tubing/D.P.						
Annular Volume						

Plug Set at _____ Size of Plug _____
 H₂O Ahead _____ bbl Cement Class _____ Additions _____
 H₂O Req: _____ gal/sk _____ cf/sk
 Slurry Wt: _____ lbs/gal _____ lbs/cf
 Slurry Vol: _____ cf/sk
 CEMENT VOLUMES: _____ cf _____ bbls
 Hole cap (cf/lf) x size of plug = cf x .1781 = bbls
 SACKS OF CEMENT: _____ sks
 Cmt vol (cf) / slurry vol (cf/sk)
 MIXING H₂O REQUIRED: _____ bbls
 Skes of cmt x H₂O req (gal/sk = gallons / 42)
 H₂O BEHIND: _____ bbls
 Annular vol (ft/bbl) x H₂O ahead = _____ x tubing/D.P.(bbl/ft)
 DISPLACEMENT: _____ bbls
 Top of plug x tubing/D.P.(bbl/ft) = _____ tubing volume



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PRIORITY REMARKS

SUNDRY(ABD): NOI TO P+A

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BALANCED PLUG WORK SHEET FOR SINGLE DIAMETER PLUGS

WELL INFORMATION MARBOB DDDO FEB #12 10-24-06

BLM REQUIRED MINIMUM SACKS

25

HOLE/PIPE SIZE 4.892 INCHES
 PLUG LENGTH 100 FEET
 PLUG DEPTH 2408 FEET
 WORKSTRING 2.375 INCHES
 WORKSTRING WT. 4.7 LBS./FT.
 CEMENT TYPE C CLASS
 CEMENT YIELD 1.32 CUFT./SX
 MIX H2O 6.32 GALS./SX
 ID WORKSTRING 1.995

HOLE/PIPE CAPACITY 0.1305 CUFT./FT.
 ANNULAR VOLUME 0.0998 CUFT./FT. 0.0178
 AV AV 2
 WORKSTRING CAPACITY 0.0217 CUFT./FT. 0.003866
 WS. CAP. WS CAP 2
 PREFLUSH LENGTH FEET
 SPACER LENGTH FEET
 ACTUAL CMT. USED SACKS

A. HOW MUCH CEMENT IS NEEDED IN CUBIC FEET?

100 FT. PLUG X 0.1305 CUFT./FT. = 13.05 CUFT.
 PLUG LENGTH HOLE/PIPE CAPACITY (A)

B. HOW MANY SACKS IS THAT?

13.05 CUFT. ÷ 1.32 CMT. YLD. = 9.89 SACKS
 (A)

ROUND TO THE NEXT HIGHEST 5 SACKS (MINIMUM PER O.O. #2, III.G.1.iii)

25.00 SACKS

C. CONVERT SACKS BACK TO CUBIC FEET.

25.00 SACKS X 1.32 CMT. YLD. = 33.00 CUFT.
 (B) (C)

D. HOW MANY BARRELS OF CEMENT SLURRY WILL THAT BE?

33.00 CUFT. X 0.1781 BBLs CUFT. = 5.88 BBLs CMT. TO PUMP
 (C) CONSTANT

E. HOW MUCH MIX WATER WILL BE NEEDED?

25.00 SACKS X 6.32 MIX H2O = 3.76 BBLs
 (B)

F. WHAT IS THE HEIGHT OF THE CEMENT INSIDE AND OUTSIDE OF THE WORKSTRING IN FEET?

0.0998 CUFT./FT. + 0.0217 CUFT./FT. = 0.1215 CUFT./FT.
 AV WS. CAP. AV + WS CAP.
 33.00 CUFT. ÷ 0.1215 CUFT./FT. = 271.68 FEET
 (C) AV + WS CAP. (D)

G. HOW MANY BARRELS OF PREFLUSH AND SPACER WILL BE USED?

0 FT. X 0.0178 BBLs/FT IN ANNULUS = 0.00 BBLs.
 PL** AV 2

0 FT. X 0.0039 BBLs/FT IN WORKSTRING = 0.00 BBLs.
 SL** WS CAP. 2

**PL=PREFLUSH LENGTH **SL=SPACER LENGTH

H. HOW MANY BARRELS OF DISPLACEMENT WILL BE NEEDED TO BALANCE THE PLUG?

271.68 FT. + 0 FT. = 271.680 FEET
 (D) SL D + SL
 2408 FT. - 271.680 FT. X 0.0039 BBLs/FT. = 8.259 BBLs TO DISPLACE
 PLUG DEPTH D + SL WS CAP. 2

I. WHAT IS THE HEIGHT OF THE CEMENT WITH THE WORKSTRING OUT OF THE PLUG?

33.00 CUFT. ÷ 0.1305 CUFT./FT. = 252.83 FEET
 (C) HOLE/PIPE CAPACITY (E)

J. WHERE WILL THE TOP OF THE CEMENT BE?

2408 FT. - 252.83 FT. = 2155.17 FEET
 PLUG DEPTH (E)

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BALANCED PLUG WORK SHEET FOR TWO DIAMETER PLUGS

HOLE SIZE	7.875	INCHES
PIPE SIZE-OD	5.5	INCHES
PIPE WT.	17	LBS./FT.
PIPE ID	4.892	INCHES
PLUG LENGTH	100	FEET
PLUG DEPTH	895	FEET
WORKSTRING	2.375	INCHES
WORKSTRING WT.	4.7	LBS./FT.
WORKSTRING ID	2.375	INCHES
CEMENT CLASS	C	
CEMENT YIELD	1.32	CUFT./SX
MIX H2O	6.32	GALS./SX

HOLE CAPACITY	0.3382
PIPE CAPACITY	0.1305

ANNULAR VOL. (HOLE & WS)***	0.3075
ANNULAR VOL. (PIPE & WS)***	0.0998
***IN CUFT/FT	

0.0178 BBL/FT.

AV 2

0.00548 BBL/FT.

WS CAP.

WS CAP. 2

PREFLUSH LENGTH (PL)	
SPACER LENGTH (SL)	

A. HOW MUCH CEMENT WILL BE NEEDED IN CUBIC FEET?

100	FT. PLUG	X	0.1305	CUFT./FT.	=	13.05	CUFT.	**(A1)	13.05
	PLUG LENGTH IN CSG.			PIPE CAPACITY		(A1)		**A1+A2=A	
100	FT. PLUG	X	0.3382	CUFT./FT.	=	33.82	CUFT.	**(A2)	33.82
	PLUG LENGTH IN HOLE			HOLE CAPACITY		(A2)	(A) CUFT.		46.88

B. HOW MANY SACKS IS THAT?

46.88	CUFT.	÷	1.32	CUFT./SX	=	35.51	SACKS
(A)			CEMENT YIELD			(B)	40 SACKS

ROUND UP TO THE NEXT HIGHEST 5 SACKS

C. CONVERT SACKS BACK TO CUBIC FEET

40	SACKS	X	1.32	CUFT./SX	=	52.8	CUFT.
(B)			CEMENT YIELD			(C)	

D. HOW MANY BARRELS OF CEMENT SLURRY?

52.8	CUFT.	X	0.1781	BBL/CUFT.	=	9.40	BBL/FT. OF CEMENT TO PUMP
(C)			CONSTANT				

E. HOW MUCH MIX WATER WILL BE NEEDED?

40	SACKS	X	6.32	GALS/SX	÷ 42 GAL/BBL =	6.04	BBL/FT.
(B)			MIX H2O				

F. WHAT IS THE HEIGHT OF THE CEMENT INSIDE AND OUTSIDE OF THE WORKSTRING IN FEET?**a) HOLE VOLUME WITH WORKSTRING IN HOLE**

0.3075	(CUFT/FT. +	0.0308	CUFT/FT.) X	100	FT. =	33.82	CUFT.
AV b/t HOLE&WS		WS CAP.		PLUG LENGTH IN HOLE		(HV)	

b) HEIGHT OF CEMENT COLUMN FROM BOTTOM OF WORK STRING

52.8	CUFT. -	33.82	CUFT. =	18.98	CUFT.
(C)		(HV)		(C-HV)	

0.0998	CUFT. +	0.0308	CUFT/FT. =	0.1305	CUFT/FT.
AV b/t PIPE AND WS		WS CAP.		(Y)	

18.98	CUFT. ÷	0.1305	CUFT/FT. +	100	FT. =	545.3892	FT.
(C-HV)		(Y)		PLUG LENGTH IN HOLE		(D)	

G. HOW MANY BARRELS OF PREFLUSH AND SPACER WILL BE USED?

0	FT. X	0.0178	BBL/FT. IN ANNULUS =	0.00	BBL/FT.
(PL)		AV 2			

0	FT. X	0.00548	BBL/FT. IN WORKSTRING =	0.00	BBL/FT.
(SL)		WS CAP. 2			

H. HOW MANY BARRELS OF DISPLACEMENT WILL BE NEEDED TO BALANCE THE PLUG?

545.3892	FT. +	0	FT. =	545.39	FT.
(D)		(SL)		D + SL	

895	FT. -	545.39	FT. X	0.00548	BBL/FT. =	1.92	BBL/FT. TO DISPLACE
PLUG DEPTH		D + SL		WS CAP. 2			

I. WHAT IS THE LENGTH OF THE CEMENT WITH THE WORKSTRING OUT OF THE PLUG?**c) HOLE VOLUME WITH WORKSTRING OUT OF THE HOLE**

0.3382	CUFT/FT. X	100	FT. =	33.82	CUFT.
HOLE CAP.		PLUG LENGTH IN HOLE		(Z)	

d) TOTAL PLUG LENGTH WITH WORKSTRING OUT OF THE HOLE

52.8	((CUFT. -	33.82	CUFT.) +	0.1305	CUFT/FT. +)	100	FT. =	245.39	FEET
(C)		(Z)		PIPE CAP.		PIPE LENGTH IN HOLE		(E)	

J. WHERE WILL TOP OF CEMENT BE?

895	FT. -	245.39	FT. =	649.61	FEET
PLUG DEPTH		(E)			

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Maebaf

#12 Dodd Fed

10-25-06

Balanced Plug Work Sheet for Single Diameter Plugs

Hole/Pipe Size	7.875	inches	Hole/Pipe Cap.	.1305	cuft/ft	
Plug Length	50	feet		.3382	cuft/ft	
Plug Depth	525	feet	Annular Vol.	.1772	cuft/ft	.0316
Workstring	2.315	inches	AV	.1733	cuft/ft	.0309
Workstring Wt.	4.7	lbs/ft	Workstring Capacity	.0217	cuft/ft	.00387
Cmt. Type	C	Class	Ws cap.			Ws cap.2
Cmt. Yield	1.32	cuft/sx	Preflush length		feet	
Mix H2O	6.32	gals/sx	Spacer length		feet	

1. How much cement is needed in cubic feet?

$$\frac{50 \text{ ft plug} \times .3382 \text{ cuft/ft}}{\text{Plug Length}} = \frac{16.91}{\text{Hole/Pipe capacity}}$$

2. How many sacks is that?

$$\frac{16.91 \text{ cuft}}{1.32 \text{ Cement Yield}} = 12.8 \text{ sxs}$$

ROUND UP TO THE NEXT HIGHEST 5 SACKS

3. Convert sacks back to cubic feet.

$$\frac{15 \text{ sxs} \times 1.32 \text{ Cement Yield}}{10 \times 1.32} = 19.8 \text{ cuft}$$

4. How many barrels of cement slurry?

$$\frac{19.8 \text{ cuft} \times 0.1781 \text{ Constant}}{C} = 3.5264 \text{ bbls}$$

5. How much mix water will be needed?

$$\frac{15 \text{ sxs} \times 6.32 \text{ Mix H2O}}{B \text{ 13.2}} = 7.25 \text{ bbls}$$

6. What is the height of the cement inside outside of the workstring in feet?

$$\frac{19.8 \text{ cuft} + .0217 \text{ Ws cap.}}{C \text{ 13.2}} = 1.495 \text{ ft}$$

7. How many barrels of preflush and spacer will be used?

$$\frac{PL \text{ preflush length} \times AV2}{ft \times Ws cap.2} = \text{bbls}$$

8. How many barrels of displacement to balance the plug?

$$\frac{101 \text{ ft} + 525 \text{ Plug Depth}}{D \text{ 66.4}} = 1.64 \text{ bbls to disp}$$

9. What is the height of the cement with the workstring out of the plug?

$$\frac{19.8 \text{ cuft} + .3382 \text{ Hole/Pipe capacity}}{C \text{ 13.2}} = 58.5 \text{ ft}$$

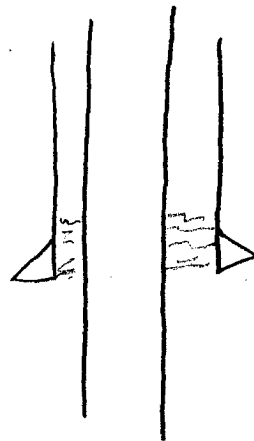
10. Where will top of cement be?

$$\frac{525 \text{ Plug Depth} - 42.89 \text{ ft}}{E} = 466.5 \text{ ft BELOW}$$

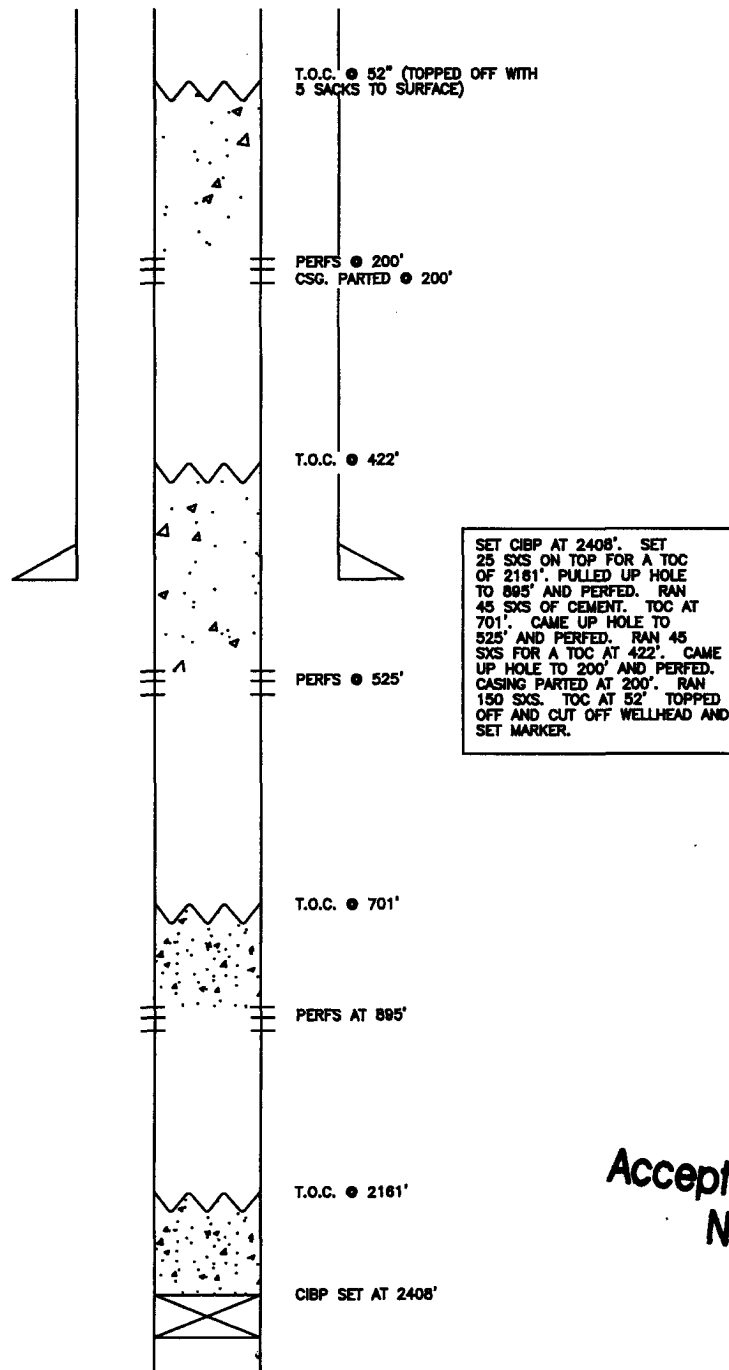
SHOE CALC,
9' ABOVE SHOE

432.11
TAG

422 423.11



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MARBOB DODD FEDERAL #12

SEC11 17S 29E