(April 2004)

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Form 3160-5 **UNITED STATES** DEPARTMENT OF THE INTERIOR 2007 BUREAU OF LAND MANAGEMENT 5. Lease Senal No. NM02862 - NM0030452 SUNDRY NOTICES AND REPORTS ON WELLS If Indian, Allottee or Tribe Name Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals. 7 If Unit or CA/Agreement, Name and/or No SUBMIT IN TRIPLICATE- Other instructions on reverse side. Gas Well□□ 8. Well Name and No. Poker Lake Unit #308H 2. Name of Operator BOPCO, L. P. API Well No. 30-015-37728 3a. Address 3b. Phone No (include area code) 432-683-2277 P. O. Box 2760 Midland, TX 79702 10 Field and Pool, or Exploratory Area Quahada Ridge SE (Delaware) 4. Location of Well (Footage, Sec., T, R, M, or Survey Description) 11. County or Parish, State Surface: NESE, 1800' FSL, 330' FEL, Sec 26, T24S, R30S, Lat N32.186669, Lon W103.843586 BHL: NWSW, 1980' FSL, 330' FWL, Sec 23, T24S, R30E, Lat N32.201456, Long W103.858733 Eddy Co., NM 12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION Acidize Production (Start/Resume) Water Shut-Off Deepen Notice of Intent Well Integrity Alter Casing Reclamation Fracture Treat Casing Repair New Construction Recomplete Other Subsequent Report ✓ Change Plans Plug and Abandon Temporarily Abandon Final Abandonment Notice Convert to Injection Plug Back 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 recomplete 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 recompletion 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 )

BOPCO requests approval for the revised cement program.

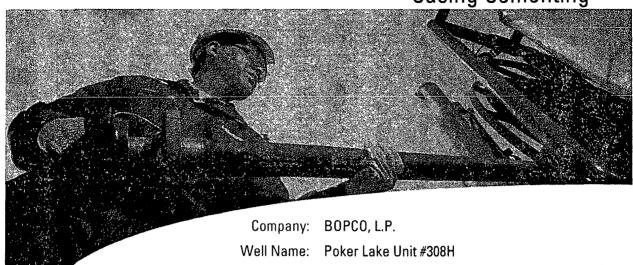
See attached

BOPCO L.P. Bond # on file: COB000050

### SEE ATTACHED FOR CONDITIONS OF APPROVAL

14 Thereby certify that the foregoing is true and correct Name (Printed/Typed)		
Annette Childers	Title Regulator	y Clerk
Signature Innette Uniders	Date 5 - 6	At - 2010
THIS SPACE FOR FEDERAL	OR STATE	OFFICE ASTEP KUVEU
Approved by Approved by	Title	Date
Conditions of approval, if any are attached. Approval of this notice does not warran certify that the applicant holds legal or equitable title to those rights in the subject leavinch would entitle the applicant to conduct operations thereon.	of or Office	/s/ Dustin Winkler
Title 18 USC Section 1001 and Title 43 USC Section 1212, make it a crime for any States any false, fictitious or fraudulent statements or representations as to any matter	person knowingly a within its jurisdict	add wi <b>ldUREALI</b> aOFd ANDIMANIAGEMENTy of the United
(Instructions on page 2)		D & 6-11-10

**Casing Cementing** 



County: Eddy State: NM

Field:

Date: 5/5/2010

Poker Lake

Well Location: PLU #308H

API Number:

Proposal Number: 1

Contact: Jordan Evans

Made By: Lynn Northcutt

Service from District: Artesia, NM

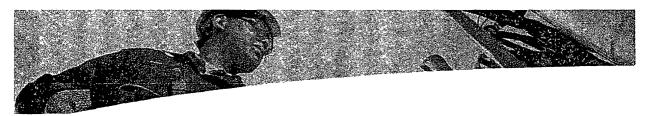
District Phone: 1-575-748-1392

Objective: Cement 869' of 13 3/8" surface casing in a 17 1/2"

open hole.

Disclarmer Notice
This information is presented in good faith, but no warranty is given by and Schlumberger assumes no habitity for advice or recommendations made concerning the use of any product or service. The results given are estimates based on calculations produced by a computer model including various assumptions on the well, reservor and treatment. The results depend on input data provided by the Customer and estimates as to unknown data and can no more accurate than the model, the assumptions and such input data. The information presented is Schlumberger's best estimate of the results that may be achieved and should be used for comparison purposes rather than absolute values. The quality of input data and hence results may be improved through the use of extrain tests and procedures which Schlumberger can assist in selecting freedoms from infringement of patents of Schlumberger or others is not to be inferred nor are any such rights granted unless expressly agreed to in writing.





### **EXECUTIVE SUMMARY**

Enclosed are our recommendations for Schlumberger intervention on the referenced well. The proposal includes well data, design data, materials and resources requirements and cost estimates. The purpose of our services is to perform a Casing Cementing treatment.

Schlumberger has established a safety policy to which all Schlumberger personnel must adhere. A pre-job safety meeting will be held with customer representatives and other on location personnel to familiarize everyone with existing hazards and safety procedures. We would appreciate close cooperation between the customer representative and the Schlumberger representative to ensure a safe operation.

The estimated total cost of our services is \$ 18,261.07. All costs are estimates only. Actual costs will be determined by time, material and equipment used during treatment. Taxes are not included. All work will be subject to Schlumberger then-current General Terms and Conditions or to the terms and conditions of a Master Service Agreement if one is in force between Schlumberger and Customer. This quote is valid for a period of thirty (30) days from the date submitted.

Thank you for considering Schlumberger. Please do not hesitate to contact me with any questions or concerns.

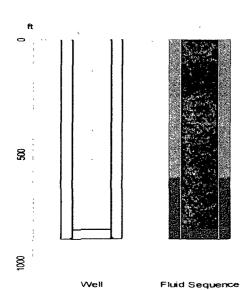
Sincerely,

Lynn Northcutt 432-571-4612 northcutt1@artesia.oilfield.slb.com





## **WELL DATA**



Well Data	
Job Type	Casing Cementing
Total Depth (Measured)	869 0 ft
True Vertical Depth (TVD)	869 0 ft
BHST (Tubular Bottom Static Temperature)	80 degF
BHCT (Tubular Bottom Circulating Temperature)	80 degF

Open Hole					
Mean Diameter without Excess	Bottom Depth	Annular Excess			
17 500 in	869 0 ft	100 00 %			

Casing					
ao	Weight	Grade	Thread	Inner Capacity	Bottom Depth
13 3/8 ın	48 0 lb/ft	H-40	STC	0 88 ft3/ft	869.0 ft

Annular Capacity (without Excess) Casing Bottom / Open Hole

0 69 ft3/ft

#### IMPORTANT

The well data shown on this page is based on information available when this treatment program was prepared. This data must be confirmed on location with the wellsite supervisor prior to the treatment. Any changes in the well data need to be reviewed for their impact on the treatment design.

Fluid Placement						
Fluid Name	Volume	Density	Top of Fluid			
	gal	lb/gal	ft			
Fresh Water	840	8 32	0.0			
Lead Slurry	6506	13 50	0.0			
Tail Slurry	3007	14 80	605 0			
Fresh Water	5468	8 32	0.0			

Total Liquid Volume 15821 gal



## **FLUID SYSTEMS**

Fresh Water			HAR MARKAN CERTAIN AND			
System		Water				
Density .	8 32 lb/gal					
Total volume	6308 gal					
Additives	Code	Description	Concentration			
Auditives						

System	Class "C"				
Density		13 50 lb/gal			
Yield		1 74 ft3/sk			
Mixed Water		9 154 gal/sk			
Mixed Fluid	9 154 gal/sk				
Total volume	6506 gal				
	Code	Description	Concentration		
	D020	Extender	4 00 % BW0B		
Additives	S001	S001 Calcium Chloride 77pct concentration			
	D130 Lost Circulation Control Agent 0 125 lb/sk				
	С	Cement	94 lb/sk		

Tail Slurry (300 sacks, 94 lb per	sack of Blend)	學的學樣的學家的學術學的學術	<b>以表现的意思,但是是这些有关的。</b>		
System	Class "C"				
Density	14 80 lb/gal				
Yield	1 34 ft3/sk				
Mixed Water	6 348 gal/sk				
Mixed Fluid	6 348 gal/sk				
Total volume	3007 gal				
	Code	Description	Concentration		
Additives	S001 D130	Calcium Chloride 77pct concentration Lost Circulation Control Agent	2 00 % BWOB 0 125 lb/sk		
	C	Cement	94 lb/sk		

Some of the chemicals specified in this program may have toxic properties. All personnel should be familiar with the inherent dangers and appropriate safeguards to prevent accidental injury. Use of the chemicals may be governed by certain laws and regulations and should only be used in accordance with such. Please refer to the MSDS sheets for the recommended safety precautions and required minimum personal protective equipment.





### **PROCEDURES**

- 1. MI (Move in) Schlumberger equipment.
- 2. Conduct Rig-up, Prime-up and pressure test safety meeting.
- 3. RU (Rig up) Schlumberger equipment and pressure test to customer master valve.
- 4. Conduct pre-job safety meeting.
- 5. Perform treatment per design pumping schedule and instructions of client representative.
- 6. Conduct post job rig down meeting.
- 7. Rig down Schlumberger equipment.
- 8. Conduct convoy meeting and move out Schlumberger equipment.



# PRICE ESTIMATE

		Unit List	Total List	Discount	Discounte
		Price	· Price \$	Rate	Price \$
Cement Bulk Unit	6 HR	107 50	645 00	52 %	309 8
Silo Setup	1 EA	570 00	570 00	52 %	273 6
Cement Head	1 JOB	520 00	520 00	52 %	249 6
Cement Service Charge	891 CF	2 27	2,022 57	52 %	970 8
Cement Transport	2237 MI	2 02	4,518 74	52 %	2,169 (
Cementing Plugs	1 EA	1,450 00	1,450 00	52 %	696 (
Equipment Mileage	220 MI	5 52	1,214 40	52 %	582 9
Car/PU Mileage	110 MI	3 24	356 40	52 %	171 (
Job Monitoring	1 JOB	880 00	880 00	52 %	422 4
Pumps by unit, depth charge	1 EA	2,240 00	2,240 00	52 %	1,075 2
Fuel Surcharge	4 EA	450 00	1,800 00	0 %	1,800 (
	Silo Setup Cement Head Cement Service Charge Cement Transport Cementing Plugs Equipment Mileage Car/PU Mileage Job Monitoring Pumps by unit, depth charge	Silo Setup       1 EA         Cement Head       1 J0B         Cement Service Charge       891 CF         Cement Transport       2237 MI         Cementing Plugs       1 EA         Equipment Mileage       220 MI         Car/PU Mileage       110 MI         Job Monitoring       1 J0B         Pumps by unit, depth charge       1 EA	Silo Setup       1 EA       570 00         Cement Head       1 J0B       520 00         Cement Service Charge       891 CF       2 27         Cement Transport       2237 MI       2 02         Cementing Plugs       1 EA       1,450 00         Equipment Mileage       220 MI       5 52         Car/PU Mileage       110 MI       3 24         Job Monitoring       1 J0B       880 00         Pumps by unit, depth charge       1 EA       2,240 00	Silo Setup         1 EA         570 00         570 00           Cement Head         1 JOB         520 00         520 00           Cement Service Charge         891 CF         2 27         2,022 57           Cement Transport         2237 MI         2 02         4,518 74           Cementing Plugs         1 EA         1,450 00         1,450 00           Equipment Mileage         220 MI         5 52         1,214 40           Car/PU Mileage         110 MI         3 24         356 40           Job Monitoring         1 JOB         880 00         880 00           Pumps by unit, depth charge         1 EA         2,240 00         2,240 00	Silo Setup         1         EA         570 00         570 00         52 %           Cement Head         1         JOB         520 00         520 00         52 %           Cement Service Charge         891         CF         2 27         2,022 57         52 %           Cement Transport         2237         MI         2 02         4,518 74         52 %           Cementing Plugs         1         EA         1,450 00         1,450 00         52 %           Equipment Mileage         220         MI         5 52         1,214 40         52 %           Car/PU Mileage         110         MI         3 24         356 40         52 %           Job Monitoring         1         JOB         880 00         880 00         52 %           Pumps by unit, depth charge         1         EA         2,240 00         2,240 00         52 %

Subtotals: \$1

\$ 16,217.11

\$ 8,720.21

Vlaterials						
Code	Standard Description	Quantity	Unit List Price	Total List Price \$	Discount Rate	Discounted Price \$
D020	Extender	1878 LB	0 40	751 20	52 %	360 58
D130	Lost Circulation Control Agent	100 LB	4 11	411 00	52 %	197 28
D903	Cement Class C	799 CF	21 45	17,138 55	52 %	8,226 50
S001	Calcium Chloride 77pct concentration	1501 LB	1 05	1,576 05	52 %	756 50

Subtotals:

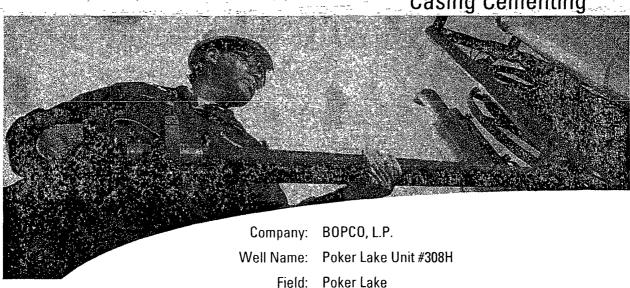
\$19,876.80

\$ 9,540.86

Total Discount	\$ 17,832.84
Job Price Estimate*:	\$ 18,261.07



**Casing Cementing** 



Field:

County: Eddy State: NM

> Date: 5/5/2010

Well Location: PLU #308H

API Number:

Proposal Number:

Contact: Jordan Evans

Made By: Lynn Northcutt

Service from District: Artesia, NM

District Phone: 1-575-748-1392

Objective: Cement 4,090' of 9 5/8" intermediate casing in a 12

1/4" open hole.

Cement calculations were based on 50% excess.



### **EXECUTIVE SUMMARY**

Enclosed are our recommendations for Schlumberger intervention on the referenced well. The proposal includes well data, design data, materials and resources requirements and cost estimates. The purpose of our services is to perform a Casing Cementing treatment.

Schlumberger has established a safety policy to which all Schlumberger personnel must adhere. A pre-job safety meeting will be held with customer representatives and other on location personnel to familiarize everyone with existing hazards and safety procedures. We would appreciate close cooperation between the customer representative and the Schlumberger representative to ensure a safe operation.

The estimated total cost of our services is \$ 18,885.48. All costs are estimates only. Actual costs will be determined by time, material and equipment used during treatment. Taxes are not included. All work will be subject to Schlumberger then-current General Terms and Conditions or to the terms and conditions of a Master Service Agreement if one is in force between Schlumberger and Customer. This quote is valid for a period of thirty (30) days from the date submitted.

Thank you for considering Schlumberger. Please do not hesitate to contact me with any questions or concerns.

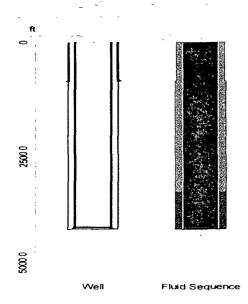
Sincerely,

Lynn Northcutt 432-571-4612 northcutt1@artesia.oilfield.slb.com





## **WELL DATA**



#### IMPORTANT

The well data shown on this page is based on information available when this treatment program was prepared. This data must be confirmed on location with the wellsite supervisor prior to the treatment. Any changes in the well data need to be reviewed for their impact on the treatment design.

Fluid Placement							
Fluid Name	Volume gal	Density Ib/gal	Top of Fluid				
Fresh Water	840	8 32	0.0				
Lead Slurry	10837	11 80	0.0				
Tail Slurry	2969	14 80	3282 0				
Fresh Water_	13150	8 32	0.0				

Total Liquid Volume 27797 gal

Well Data	
Job Type	Casing Cementing
Total Depth (Measured)	4090 0 ft
True Vertical Depth (TVD)	4090.0 ft
BHST (Tubular Bottom Static Temperature)	108 degF
BHCT (Tubular Bottom Circulating Temperature)	96 degF

Open Hole	The state of the s	Company of the
Mean Diameter without Excess	Bottom Depth	Annular Excess
12 250 in	4090 0 ft	50 00 %

Previous C	asing 🔌 🕆			the state of the state of	STORY STORY
OD	Weight	Grade	Thread	Inner Capacity	Bottom Depth
13 3/8 in	54 5 lb/ft	J-55	BTC	0 87 ft3/ft	869 0 ft

Casing 🐇			Jan day	17、山麓、大村东西	THE STATE OF THE S
OD	Weight	Grade	Thread	Inner Capacity	Bottom Depth
9 5/8 in	36 0 lb/ft	K-55	LTC	0 43 ft3/ft	4090 0 ft

Annular Capacity (without Excess) Casing Bottom / Open Hole 0.31 ft3/ft
Annular Capacity (without Excess) Previous Casing Bottom / Casing 0.36 ft3/ft



## **FLUID SYSTEMS**

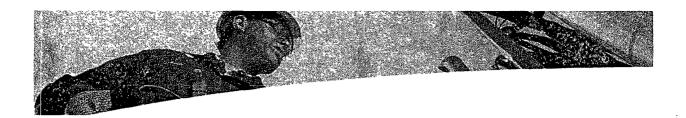
Water 19			The state of the state of			
System		Water				
Density		8 32 lb/gal				
Total volume		13990 gal				
	Code	Description	Concentration			
Additives						

Lead Slurry (566 sacks, 87 lb p	er sack of Blend)	all consists of the control of the	BOLESON TO THE STREET STREET, DEC.				
System		50/50 (P/C)					
Density		11 80 lb/gal					
Yield		2 56 ft3/sk					
Mixed Water		14 953 gal/sk					
Mixed Fluid		14 953 gal/sk					
Total volume		10837 gal					
	Code	Description	Concentration				
	D044	NaCl	5 00 % BWOW				
	D046	Antı Foam	0 20 % BWOB				
A ddiain.	D020	Extender	8 00 % BWOB				
Additives	D042	Extender	3 lb/sk				
	D130	Lost Circulation Control Agent	0 125 lb/sk				
	D903	Cement	47 lb/sk				
	D132	Extender	40 lb/sk				

System		Class "C"				
Density		14 80 lb/gal				
Yield		1 33 ft3/sk				
Mixed Water	6 365 gal/sk					
Mixed Fluid		6 365 gal/sk				
Total volume		2969 gal				
8.1.12	Code	Description	Concentration			
Additives	С	Cement	94 lb/sk			

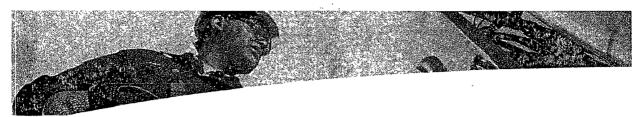
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### **PROCEDURES**

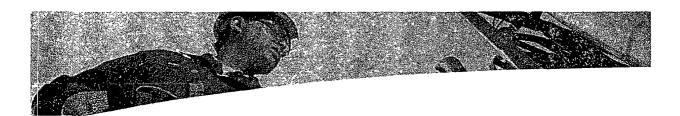
- 1. MI (Move in) Schlumberger equipment.
- 2. Conduct Rig-up, Prime-up and pressure test safety meeting.
- 3. RU (Rig up) Schlumberger equipment and pressure test to customer master valve.
- 4. Conduct pre-job safety meeting.
- 5. Perform treatment per design pumping schedule and instructions of client representative.
- 6. Conduct post job rig down meeting.
- 7. Rig down Schlumberger equipment.
- 8. Conduct convoy meeting and move out Schlumberger equipment.



# PRICE ESTIMATE

Code	Standard Description	Quantity	Unit List Price	Total List Price	Discount Rate	Discounte Price
				\$		\$
48019000	Cement Bulk Unit	8 HR	107 50	860 00	52 %	412 80
48021000	Silo Setup	1 EA	570 00	570 00	52 %	273 60
48601000	Cement Head	1 JOB	520 00	520 00	52 %	249 60
49100000	Cement Service Charge	1018 CF	2 27	2,310 86	52 %	1,109 21
49102000	Cement Transport	2383 MI	2 02	4,813 66	52 %	2,310 56
56702095	Cementing Plugs	1 EA	468 00	468 00	52 %	224 6
59200002	Equipment Mileage	330 MI	5 52	1,821 60	52 %	874 3
59200005	Car/PU Mileage	110 MI	3 24	356 40	52 %	171 0
59697004	Job Monitoring	1 JOB	880 00	880 00	52 %	422 4
102871045	Pumps by unit, depth charge	1 EA	3,000 00	3,000 00	52 %	1,440 0
102946000	Fuel Surcharge	4 EA	450 00	1,800 00	0 %	1,800 0

Subtotals: \$ 17,400.52 \$ 9,288.25



Code	Standard Description	Quantity	Unit List Price	Total List Price	Discount Rate	Discounted Price
5000				\$		\$
D020	Extender	3940 LB	0 40	1,576 00	52 %	756 48
D042	Extender	1698 LB	0 83	1,409 34	52 %	676 48
D044	NaCl	3469 LB	0 48	1,665 12	52 %	799 26
D046	Antı Foam	99 LB	4 75	470 25	52 %	225 72
D130	Lost Circulation Control Agent	71 LB	4 11	291 81	52 %	140 07
D132	Extender	286 CF	7 26	2,076 36	52 %	996 65
D903	Cement Class C	583 CF	21 45	12,505 35	52 %	6,002 57

Subtotals:

\$ 19,994.23

\$ 9,597.23

Total Discount:	\$ 18,509.27
Job Price Estimate*:	\$ 18,885.48

Multistage Cementing



County: Eddy

Field:

State: NM

5/5/2010

Poker Lake

Well Location: PLU #308H

API Number:

Proposal Number:

Contact: Jordan Evans

Made By: Lynn Northcutt

Service from District: Artesia, NM

District Phone: 1-432-575-1392

Cement 8,730' of 7" casing in a 8 3/4" open hole in Objective:

two stages with the DV tool at 5,000'.

Cement volumes were calculated using 30%

excess.



### **EXECUTIVE SUMMARY**

Enclosed are our recommendations for Schlumberger intervention on the referenced well. The proposal includes well data, design data, materials and resources requirements and cost estimates. The purpose of our services is to perform a Multistage Cementing treatment.

Schlumberger has established a safety policy to which all Schlumberger personnel must adhere. A pre-job safety meeting will be held with customer representatives and other on location personnel to familiarize everyone with existing hazards and safety procedures. We would appreciate close cooperation between the customer representative and the Schlumberger representative to ensure a safe operation.

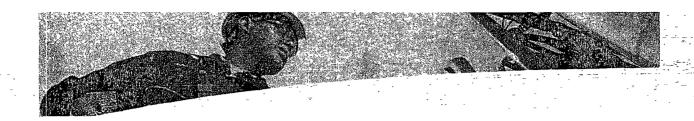
The estimated total cost of our services is \$43,461.37. All costs are estimates only. Actual costs will be determined by time, material and equipment used during treatment. Taxes are not included. All work will be subject to Schlumberger then-current General Terms and Conditions or to the terms and conditions of a Master Service Agreement if one is in force between Schlumberger and Customer. This quote is valid for a period of thirty (30) days from the date submitted.

Thank you for considering Schlumberger. Please do not hesitate to contact me with any questions or concerns.

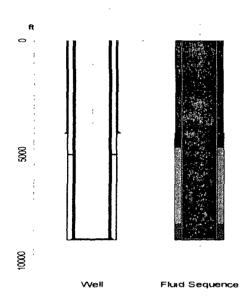
Sincerely,

Lynn Northcutt 432-571-4612 northcutt1@artesia.oilfield.slb.com





# WELL DATA Stage 1



#### IMPORTANT

The well data shown on this page is based on information available when this treatment program was prepared. This data must be confirmed on location with the wellsite supervisor prior to the treatment. Any changes in the well data need to be reviewed for their impact on the treatment design.

Fluid Placem	ent ·		
Fluid Name	Volume	Density	Top of Fluid
	gal	lb/gal	ft
CW100	840	8 33	3468 6
Fresh Water	840	8 32	4134 2
Lead Slurry	4889	10 20	4708 7
Tail Slurry	1054	13 00	8052 9
Fresh Water	13965	8 32	0.0

Total Liquid Volume 21588 gal

Well Data	<b>使的现在分词作为</b>
Job Type	Multistage Cementing
Total Depth (Measured)	8730 0 ft
True Vertical Depth (TVD)	8730 0 ft
BHST (Tubular Bottom Static Temperature)	125 degF
BHCT (Tubular Bottom Circulating Temperature)	109 degF

Open Hole was a second of the						
Mean Diameter without Excess	Bottom Depth	Annular Excess				
8 750 in	8730 0 ft	30 00 %				

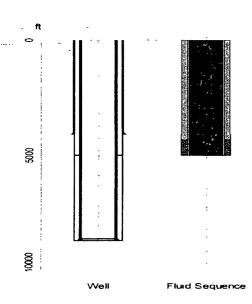
Previous C	asing		Jugar P.		Property Base
OD	Weight	Grade	Thread	Inner Capacity	Bottom Depth
9 5/8 in	36 0 lb/ft	K-55	LTC	0 43 ft3/ft	4090 0 ft

Casing	Mit to the	3	We for		"是一个情况"
OD	Weight	Grade	Thread	Inner Capacity	Bottom Depth
7 in	26 0 lb/ft	L-80	LTC	0 21 ft3/ft	8730 0 ft

Annular Capacity (without Excess) Casing Bottom / Open Hole 0 15 ft3/ft
Annular Capacity (without Excess) Previous Casing Bottom / Casing 0 17 ft3/ft



# WELL DATA Stage 2



Well Data	The Add House Co
Job Type	Multistage Cementing
Total Depth (Measured) :	8730 0 ft
True Vertical Depth (TVD)	8730 0 ft
BHST (Tubular Bottom Static Temperature)	106 degF
BHCT (Tubular Bottom Circulating Temperature)	95 degF

Stage Collar				:	
Measured Dept	h :	5	000.0 ft		 ]

Previous C	asing		-		S. Land St.
OD	Weight	Grade	Thread	Inner Capacity	Bottom Depth
9 5/8 ın	36 0 lb/ft	K-55	LTC	0 43 ft3/ft	4090 0 ft

Càsing					
OD	Weight	Grade	Thread	Inner Capacity	Bottom Depth
7 in	26 0 lb/ft	L-80	LTC	0 21 ft3/ft	8730 0 ft

Annular Capacity (without Excess) Previous Casing Bottom / Casing 0 17 ft3/ft

#### IMPORTANT

The well data shown on this page is based on information available when this treatment program was prepared. This data must be confirmed on location with the wellsite supervisor prior to the treatment. Any changes in the well data need to be reviewed for their impact on the treatment design.

Fluid Placement									
Fluid Name	Volume	Density	Top of Fluid						
	gal	lb/gal	ft						
Fresh Water	840	8 32	0.0						
Lead Sturry	6048	10 20	0.0						
Tail Slurry	991	14 80	4322 0						
Fresh Water	8035	8 32	0.0						

Total Liquid Volume 15914 gal



# FLUID SYSTEMS Stage 1

CW100 32, 34 3 3 34	Jack Brands	provide a second provid	THE RESERVE AND LOST WAS TO				
System	CW100						
Density	8 33 lb/gal						
Total volume	840 gal						
Addising	Code	Description	Concentration				
Additives							

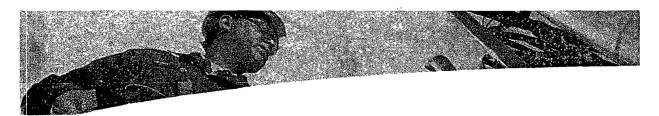
Fresh Water			1			
System					Water	
Density			^	{	32 lb/gal	
Total volume				14	305 gal	
A 4 3 4	Co	de		Description		Concentration
Additives						

Lead Slurry (301 sacks, 100 lb p	er sack of Blend)			· 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.		
System			LiteCRETE			
Density	10 20 lb/gal					
Yield	2 18 ft3/sk					
Mixed Water	7 477 gal/sk					
Mixed Fluid	7 477 gal/sk					
Total volume			4889 gal			
	Code	Descrip	tion	Concentration		
	D042	Extend	er	3 lb/sk		
Additives	D046	Anti Fo	am	0 20 % BW0B		
Additives	D013	Retard	er	0 30 % BWOB		
	D065	Dispers	ant	0 30 % BW0B		
	D124	Extend	ler	35 lb/sk		

Slurry (101 sacks, 75 lb pe	rsack of Blend)	Frank Carlo Good y Con St	Service Street		
System		TXI			
Density		13 00 lb/gal			
Yield		1 41 ft3/sk			
Mixed Water		7 027 gal/sk			
Mixed Fluid	7 027 gal/sk				
Total volume		1054 gal			
	Code	Description	Concentration		
	D167	Fluid loss	0 30 % BW0B		
Additives	D065	Dispersant	0 15 % BW0B		
Additives	D013	Retarder	0 20 % BWOB		
	D042	Extender	3 lb/sk		
	D049	Cement	75 lb/sk		

Some of the chemicals specified in this program may have toxic properties. All personnel should be familiar with the inherent dangers and appropriate safeguards to prevent accidental injury. Use of the chemicals may be governed by certain laws and regulations and should only be used in accordance with such. Please refer to the MSDS sheets for the recommended safety precautions and required minimum personal protective equipment.





# FLUID SYSTEMS Stage 2

sh Water	Testing the second of the second	A Company of the Company of the Company of the	等一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个		
System		Water			
Density	8 32 lb/gal				
Total volume		8875 gal			
A 1474	Code	Description	Concentration		
Additives					

Slurry (351 sacks, 100 lb	per sack of Blend)	A CARRY OF TAXABLE CONTRACTOR	the first of the second of the	
System		LiteCRETE		
Density		10 20 lb/gal		
Yield		2 31 ft3/sk		
Mixed Water		8 725 gal/sk		
Mixed Fluid	8 725 gal/sk			
Total volume	6048 gal			
	Code	Description	Concentration	
	D042	Extender	3 lb/sk	
Additives	D046	0 20 % BW0B		
	0 30 % BWOB			
	D124	Extender	33 lb/sk	

Tail Slurry (100 sacks, 94 lb per	r sack of Blend) 🦠 🖖				
System	,	Class "C'	,		
Density		14 80 lb/gal			
Yield		1 33 ft3/sk			
Mixed Water	6 352 gal/sk				
Mixed Fluid		6 352 gal/sk			
Total volume		991 gal			
	Code	Description	Concentration		
Additives	D013	Retarder	0 20 % BW0B		
	C _	Cement	94 lb/sk		

Some of the chemicals specified in this program may have toxic properties. All personnel should be familiar with the inherent dangers and appropriate safeguards to prevent accidental injury. Use of the chemicals may be governed by certain laws and regulations and should only be used in accordance with such. Please refer to the MSDS sheets for the recommended safety precautions and required minimum personal protective equipment.





### **PROCEDURES**

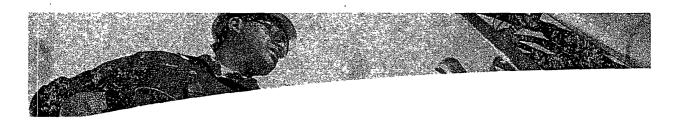
- 1. MI (Move in) Schlumberger equipment.
- 2. Conduct Rig-up, Prime-up and pressure test safety meeting.
- 3. RU (Rig up) Schlumberger equipment and pressure test to customer master valve.
- 4. Conduct pre-job safety meeting.
- 5. Perform treatment per design pumping schedule and instructions of client representative.
- 6. Conduct post job rig down meeting.
- 7. Rig down Schlumberger equipment.
- 8. Conduct convoy meeting and move out Schlumberger equipment.



# PRICE ESTIMATE

Equipment and	1 Services	h shi ka mpa alas sa	THE PARTY OF		· " " " " " " " " " " " " " " " " " " "	
Code	Standard Description	Quantity	Unit List	Total List	Discount	Discounted
			Price	Price	Rate	Price
				\$		\$
48016000	Pumps by unit, additional stage	1 EA	2,400 00	2,400 00	52 %	1,152 00
48019000	Cement Bulk Unit	16 HR	107 50	1,720 00	52 %	825 60
48021000	Silo Setup	2 EA	570 00	1,140 00	52 %	547 20
48601000	Cement Head	1 JOB	520 00	520 00	52 %	249 60
49100000	Cement Service Charge	206 CF	2 27	467 62	52 %	224 46
49100001	CemCRETE Service Charge	1513 CF	3 13	4,735 69	52 %	2,273 13
49102000	Cement Transport	2329 MI	2.02	4,704 58	52 %	2,258 20
59200002	Equipment Mileage	660 MI	5 52	3,643 20	52 %	1,748 74
59200005	Car/PU Mileage	110 MI	3 24	356 40	52 %	171 07
59697004	Job Monitoring	1 JOB	880 00	880 00	52 %	422 40
102871090	Pumps by unit, depth charge	1 EA	4,900 00	4,900 00	52 %	2,352 00
102946000	Fuel Surcharge	6 EA	450 00	2,700 00	0 %	2,700 00

Subtotals: \$28,167.49 \$14,924.40



Code	Standard Description	Quantity	Unit List Price	Total List Price	Discount Rate	Discounte Price
				\$	····	\$
D013	Retarder	124 LB	2 61	323 64	52 %	155 35
D042	Extender	2253 LB	0 83	1,869 99	52 %	897 60
D046	Antı Foam	131 LB	4 75	622 25	52 %	298 6
D049	Cement	101 CF	21 95	2,216 95	52 %	1,064 1
D065	Dispersant	207 LB	7 35	1,521 45	52 %	730 3
D124	Extender	22364 LB	1 64	36,676 96	52 %	17,604 9
D167	Fluid loss	23 LB	42 50	977 50	52 %	469 2
D827	CW100	20 BBL	57 00	1,140 00	52 %	547 2
D903	Cement Class C	100 CF	21 45	2,145 00	52 %	1,029 6
D961	LiteCRETE	42708 LB	0 28	11,958 24	52 %	5,739 9

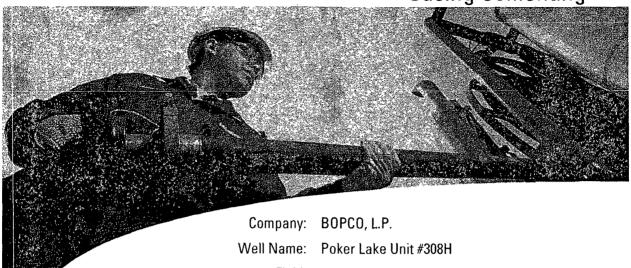
Subtotals:

\$ 59,451.98

\$ 28,536.97

Total Discount	\$ 44,158 10

**Casing Cementing** 



Field: Poker Lake

County: Eddy
State: NM

Date: 5/5/2010

Well Location: PLU #308H

API Number:

Proposal Number: 1

Contact: Jordan Evans

Made By: Lynn Northcutt

Service from District: Artesia, NM

District Phone: 1-575-748-1392

Objective: Cement 14,000' of 4 1/2" casing in a 6 1/8" open hole

with acid soluble cement.

Cement calculations were based on 30% excess.

TOC at 7,100'.

#### Disclaimer Motice

Disclarment Notice

This instruction is greeated in good faith but no warranty is given by and Schlumberger assumes no liability for advice or recommendations made concerning the use of any product or service. The results given are estimates based on calculations produced by a computer model including various assumptions on the well reservor and treatment. The results repend on input data provided by the Customer and estimates as to unknown data and can not more accurate than the model. The assumptions and such input data. The information presented is Schlumberger's best estimate of the results that may be extineed and should be used for comparison purposes rather than absolute values. The quality of input data, and hence results, may be improved through the use of certain tests and procedures which Schlümberger can assist in selecting. Freedoms from infringement of patents of Schlumberger or others is not to be inferred nor are any such rights granted unless expressly agreed to in writing.





### **EXECUTIVE SUMMARY**

Enclosed are our recommendations for Schlumberger intervention on the referenced well. The proposal includes well data, design data, materials and resources requirements and cost estimates. The purpose of our services is to perform a Casing Cementing treatment.

Schlumberger has established a safety policy to which all Schlumberger personnel must adhere. A pre-job safety meeting will be held with customer representatives and other on location personnel to familiarize everyone with existing hazards and safety procedures. We would appreciate close cooperation between the customer representative and the Schlumberger representative to ensure a safe operation.

The estimated total cost of our services is \$24,554.23. All costs are estimates only. Actual costs will be determined by time, material and equipment used during treatment. Taxes are not included. All work will be subject to Schlumberger then-current General Terms and Conditions or to the terms and conditions of a Master Service Agreement if one is in force between Schlumberger and Customer. This quote is valid for a period of thirty (30) days from the date submitted.

Thank you for considering Schlumberger. Please do not hesitate to contact me with any questions or concerns.

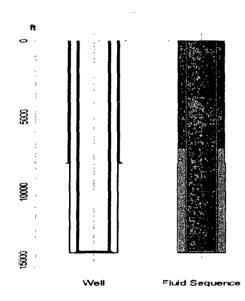
Sincerely,

Lynn Northcutt 432-571-4612 northcutt1@artesia.oilfield.slb.com





## **WELL DATA**



#### IMPORTANT

The well data shown on this page is based on information available when this treatment program was prepared. This data must be confirmed on location with the wellsite supervisor prior to the treatment. Any changes in the well data need to be reviewed for their impact on the treatment design.

Fluid Placement							
Fluid Name	Volume	Density	Top of Fluid				
Fresh Water	<b>gal</b> 840	lb/gal 8 32	6024 2				
Lead Slurry	6236	13 00	7100 0				
Fresh Water	9087	8 32	0.0				

Total Liquid Volume 16163 gal

Well Data	
Job Type	Casing Cementing
Total Depth (Measured)	14000 0 ft
True Vertical Depth (TVD)	14000 0 ft
BHST (Tubular Bottom Static Temperature)	128 degF
BHCT (Tubular Bottom Circulating Temperature)	106 degF

Open Hole	A CONTRACTOR	2000年的1900年
Mean Diameter without Excess	Bottom Depth	Annular Excess
6 125 in	14000 0 ft	30 00 %

Previous Casing					
QO	Weight	Grade	Thread	Inner Capacity	Bottom Depth
7 in	26 0 lb/ft	N-80	LTC	0 21 ft3/ft	8100 0 ft

Casing			A STATE OF THE STA		
OD	Weight	Grade	Thread	Inner Capacity	Bottom Depth
4 1/2 in	11 6 lb/ft	N-80	IFJ	0 09 ft3/ft	14000 0 ft

Annular Capacity (without Excess) Casing Bottom / Open Hole 0 09 ft3/ft
Annular Capacity (without Excess) Previous Casing Bottom / Casing 0 10 ft3/ft



## **FLUID SYSTEMS**

Fresh Water			· 一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个	
System				
Density	8 32 lb/gal			
Total volume	9927 gal			
Additives	Code	Description	Concentration	
Additives				

Lead Slurry (455 sacks, 75 lb p	er sack of Blend). 🤲	Mary Property of the State of t				
System		Acid Soluble Cement				
Density		13 00 lb/gal				
Yield		1 83 ft3/sk				
Mixed Water		9 331 gal/sk				
Mixed Fluid		9 331 gal/sk				
Total volume		6236 gal				
	Code	Description	Concentration			
	D151	Miscellaneous	30 00 % BWOB			
	D174	Expanding Agent	2 00 % BWOB			
Additives	D065	Dispersant	0 60 % BWOB			
Additives	D046	Antı Foam	0 20 % BW0B			
	D112	Fluid loss	1 00 % BWOB			
	D800	Retarder	0 30 % BW0B			
	D049	Cement	75 lb/sk			

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### **PROCEDURES**

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# PRICE ESTIMATE

Equipment an	d Services (大大大) (1924) (1937)			Valencia (A	i en en e	
Code	Standard Description	Quantity	Unit List	Total List	Discount	Discounted
		•	Price	Price	Rate	Price
			-	\$	· · · · · · · · · · · · · · · · · · ·	\$
48021000	Silo Setup	1 EA	570 00	570 00	52 %	273 60
48601000	Cement Head	1 JOB	520 00	520 00	52 %	249 60
49100000	Cement Service Charge	618 CF	2 27	1,402 86	52 %	673 37
49102000	Cement Transport .	1259 MI	2 02	2,543 18	52 %	1,220 73
59200002	Equipment Mileage	220 MI	5 52	1,214 40	52 %	582 91
59200005	Car/PU Mileage	110 MI	3 24	356 40	52 %	171 07
59697004	Job Monitoring	1 J0B	880 00	880 00	52 %	422 40
102871140	Pumps by unit, depth charge	1 EA	13,100 00	13,100 00	52 %	6,288 00
102946000	Fuel Surcharge	4 EA	450 00	1,800 00	0 %	1,800 00

Subtotals:

\$ 22,386.84

\$11,681.68

Code	Standard Description	Quantity	Unit List Price	Total List Price	Discount Rate	Discounted Price
D046	Antı Foam	69 LB	4 75	327 75	52 %	157 32
D049	Cement	455 CF	21 95	9,987 25	52 %	4,793 88
D065	Dispersant	205 LB	7 35	1,506 75	52 %	723 24
D112	Fluid loss	342 LB .	13 90	4,753 80	52 %	2,281 82
D151	Miscellaneous	10236 LB	0 67	6,858 12	52 %	3,291 90
D174	Expanding Agent	683 LB	4 05	2,766 15	52 %	1,327 75
D800	Retarder	103 LB	6 00	618 00	52 %	296 64
		-				

Subtotals:

\$ 26,817.82

\$ 12,872.55

Total Discount	\$ 24,650 43
Job Price Estimate*:	\$ 24,554.23



BOPCO, LP

NM-02862: Poker Lake Unit #308H

API: 30-015-37728

Eddy County, New Mexico

RE: Cement Change – Conditions of Approval

Additional cement may be required on the production casing (if circulating to surface) and on the production liner.

DHW 060110