



Proposal No: 991950105A

**DEVON ENERGY PRODUCTION COMPANY LP**  
Gadwall 2 State 1H

*LEA*  
Eddy County, New Mexico  
June 9, 2015

HOBBS OCD  
JUN 30 2015

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30-025-42654

**Well Proposal**

**Prepared for:**

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Powered by  
**PowerVision**

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JUL 01 2015

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP  
Well Name: Gadwall 2 State 1H  
Job Description: Surface Casing  
Date: June 9, 2015



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### **JOB AT A GLANCE**

Depth (TVD)	2,100 ft
Depth (MD)	2,100 ft
Hole Size	17.5 in
Casing Size/Weight	13 3/8 in, 54.5 lbs/ft
Pump Via	13 3/8" O.D. (12.615" I.D) 54.5
Total Mix Water Required	15,227 gals
Spacer	
Fresh Water	20 bbls
Density	8.3 ppg
Lead Slurry	
Class C + Additives	1,320 sacks
Density	13.5 ppg
Yield	1.73 cf/sack
Tail Slurry	
Class C	500 sacks
Density	14.8 ppg
Yield	1.35 cf/sack
Displacement	
Mud	318 bbls
Density	9.0 ppg

\* Verify the pipe sizes, depths and volume calculations with the operator's representative.

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP  
 Well Name: Gadwall 2 State 1H  
 Job Description: Surface Casing  
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## WELL DATA

### ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
17.500 HOLE	2,100	2,100

### SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
13.375	12.615	54.5	2,100	2,100

Float/Landing Collar set @ 2,055 ft  
 Mud Density 9.00 ppg  
 Est. Static Temp. 80 ° F  
 Est. Circ. Temp. 89 ° F

### VOLUME CALCULATIONS

1,644 ft x 0.6946 cf/ft with 100 % excess = 2283.8 cf  
 456 ft x 0.6946 cf/ft with 100 % excess = 633.7 cf  
 45 ft x 0.8680 cf/ft with 0 % excess = 39.1 cf (inside pipe)  
**TOTAL SLURRY VOLUME = 2956.5 cf**  
 = 527 bbls

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP  
**Well Name:** Gadwall 2 State 1H  
**Job Description:** Surface Casing  
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## **FLUID SPECIFICATIONS**

Spacer 20.0 bbls Fresh Water @ 8.34 ppg

<u>FLUID</u>	<u>VOLUME CU-FT</u>	<u>VOLUME FACTOR</u>	<u>AMOUNT AND TYPE OF CEMENT</u>
Lead Slurry	2284	/ 1.73	= 1320 sacks Premium Plus C Cement + 0.005 lbs/sack Static Free + 1% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 0.005 gps FP-6L + 4% bwoc Bentonite + 81% Fresh Water
Tail Slurry	673	/ 1.35	= 500 sacks Premium Plus C Cement + 0.005 lbs/sack Static Free + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 0.005 gps FP-6L + 56.3% Fresh Water
Displacement			317.7 bbls Mud @ 9 ppg

## **CEMENT PROPERTIES**

	<b>SLURRY NO.1</b>	<b>SLURRY NO.2</b>
Slurry Weight (ppg)	13.50	14.80
Slurry Yield (cf/sack)	1.73	1.35
Amount of Mix Water (gps)	9.13	6.34
Amount of Mix Fluid (gps)	9.14	6.35
Estimated Pumping Time - 70 BC (HH:MM)	4:00	2:30

## **COMPRESSIVE STRENGTH**

8 hrs @ 80 ° F (psi)		500
12 hrs @ 80 ° F (psi)	400	865
15 hrs @ 80 ° F (psi)	500	
24 hrs @ 80 ° F (psi)	700	1475
72 hrs @ 80 ° F (psi)		2700

\* All slurries are to be optimized and tested by the Region Laboratory prior to cementing.

\* The above slurries are only estimates at the time the proposal was written.

\* Cement volumes may change pending a caliper log

Operator: DEVON ENERGY PRODUCTION COMPANY LP  
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### PRICE ESTIMATE

#### Product Material

QTY	UNIT	PRODUCT DESCRIPTION	NET AMOUNT
2181	lbs	Calcium Chloride	604.90
4964	lbs	Bentonite	565.65
228	lbs	Cello Flake	250.00
1820	94lbs	Premium Plus C Cement	17,936.10
10	gals	FP-6L	224.14
350	lbs	Granulated Sugar	288.96
10	lbs	Static Free	87.51
1	ea	13-3/8" Top Cem Plug, Nitrile cvr, Phen	264.45
Product Material Subtotal:			\$20,221.71

#### Service Charges

QTY	UNIT	PRODUCT DESCRIPTION	NET AMOUNT
1	ea	Personnel Per Diem Chrg - Cement Svc	210.00
1964	cu ft	Bulk Materials Blending Charge	2,301.32
Service Charges Subtotal:			\$2,511.32

#### Equipment

QTY	UNIT	PRODUCT DESCRIPTION	NET AMOUNT
1	day	Hi-Volume Air Compressor	160.18
1	4hrs	Cement Pumping, 2001 - 3000 ft	1,128.75
3	pump/hr	Fuel per pump charge - cement	45.31
1	job	Fas-Lok Cement Head	178.45
1	job	Data Acquisition, Cement, Standard	457.95
180	miles	Mileage, Heavy Vehicle	458.60
90	miles	Mileage, Auto, Pick-Up or Treating Van	129.65
1	job	Field Storage Bin, Up To 5 Days	355.83
Equipment Subtotal:			\$2,914.72

Customer will be charged for all 'SPECIAL PROPPANTS' delivered to location, whether they are pumped or not. All proppants other than standard grade frac sand are considered 'SPECIAL PROPPANTS'. The technical data contained in this proposal is based on the best information available at the time of writing and is subject to further analysis and testing. The pricing data contained in this proposal are estimates only and may vary depending on the work actually performed. Pricing does not include federal, state and local taxes or royalties. This quotation is based on Baker Hughes being awarded the work on a first call basis and within thirty (30) days of the proposal date. These prices will be subject to review if the work is done after thirty (30) days from the proposal date, or on a second or third call basis.

Operator: DEVON ENERGY PRODUCTION COMPANY LP  
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**PRICE ESTIMATE**

**Freight/Delivery Charges**

QTY	UNIT	PRODUCT DESCRIPTION	NET AMOUNT
4015	tonmi	Bulk Delivery, Dry Products	3,401.11
Freight/Delivery Charges Subtotal:			\$3,401.11
TOTAL:			\$29,048.86

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Operator Name: DEVON ENERGY PRODUCTION COMPANY LP  
Well Name: Gadwall 2 State 1H  
Job Description: Intermediate Casing  
Date: June 9, 2015



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### **JOB AT A GLANCE**

Depth (TVD)	5,300 ft
Depth (MD)	5,300 ft
Hole Size	12.25 in
Casing Size/Weight	9 5/8 in, 40 lbs/ft
Pump Via	9 5/8" O.D. (8.835" I.D) 40
Total Mix Water Required	11,414 gals
Spacer	
Fresh Water	10 bbls
Density	8.3 ppg
Spacer	
SealBond II	50 bbls
Lead Slurry	
60:40 Class C + Additives	1,005 sacks
Density	12.6 ppg
Yield	1.73 cf/sack
Tail Slurry	
60:40 Class C + Additives	400 sacks
Density	13.8 ppg
Yield	1.38 cf/sack
Displacement	
Mud	398 bbls
Density	10.0 ppg

\* Verify the pipe sizes, depths and volume calculations with the operator's representative.

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP  
 Well Name: Gadwall 2 State 1H  
 Job Description: Intermediate Casing  
 Date: June 9, 2015



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## WELL DATA

### ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
12.615 CASING	2,100	2,100
12.250 HOLE	5,300	5,300

### SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
9.625	8.835	40	5,300	5,300

Float/Landing Collar set @ 5,255 ft  
 Mud Density 10.00 ppg  
 Est. Static Temp. 120 ° F  
 Est. Circ. Temp. 106 ° F

### VOLUME CALCULATIONS

2,100 ft	x	0.3627 cf/ft	with	0 % excess	=	761.6 cf
2,068 ft	x	0.3132 cf/ft	with	50 % excess	=	971.6 cf
1,132 ft	x	0.3132 cf/ft	with	50 % excess	=	531.7 cf
45 ft	x	0.4257 cf/ft	with	0 % excess	=	19.2 cf (inside pipe)
<b>TOTAL SLURRY VOLUME</b>					=	2284.1 cf
					=	407 bbls



Operator Name: DEVON ENERGY PRODUCTION COMPANY LP  
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## FLUID SPECIFICATIONS

Spacer 10.0 bbls Fresh Water @ 8.34 ppg  
 Spacer 50.0 bbls SealBond II + 10 lbs/bbl SealBond Plus

FLUID	VOLUME CU-FT	VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Lead Slurry	1733	/ 1.73	= 1005 sacks (60:40) Poz (Fly Ash):Premium Plus C Cement + 0.005 lbs/sack Static Free + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 3 lbs/sack LCM-1 + 0.2% bwoc FL-52 + 0.005 gps FP-6L + 1% bwoc Sodium Metasilicate + 89.6% Fresh Water
Tail Slurry	551	/ 1.38	= 400 sacks (60:40) Poz (Fly Ash):Premium Plus C Cement + 0.005 lbs/sack Static Free + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.005 gps FP-6L + 0.25% bwoc Sodium Metasilicate + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 65.2% Fresh Water
Displacement			398.5 bbls Mud @ 10 ppg

## CEMENT PROPERTIES

	SLURRY NO.1	SLURRY NO.2
Slurry Weight (ppg)	12.60	13.80
Slurry Yield (cf/sack)	1.73	1.38
Amount of Mix Water (gps)	8.81	6.41
Amount of Mix Fluid (gps)	8.81	6.41
Estimated Pumping Time - 70 BC (HH:MM)	4:30	2:30
COMPRESSIVE STRENGTH		
17 hrs @ 100 ° F (psi)	500	
24 hrs @ 100 ° F (psi)	875	
72 hrs @ 100 ° F (psi)	1625	
7 hrs @ 112 ° F (psi)		500
24 hrs @ 112 ° F (psi)		1900
72 hrs @ 112 ° F (psi)		2700

- \* All slurries are to be optimized and tested by the Region Laboratory prior to cementing.
- \* The above slurries are only estimates at the time the proposal was written.
- \* Cement volumes may change pending a caliper log
- \* Do not pump any water spacer between SealBond II and lead cement slurry

Operator: DEVON ENERGY PRODUCTION COMPANY LP  
 Well Name: Gadwall 2 State 1H  
 Job Description: Intermediate Casing  
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### PRICE ESTIMATE

#### Product Material

QTY	UNIT	PRODUCT DESCRIPTION	NET AMOUNT
907	lbs	Sodium Metasilicate	799.52
3015	lbs	LCM-1	790.83
176	lbs	Cello Flake	192.98
843	74lbs	Poz (Fly Ash)	3,081.17
4758	lbs	Sodium Chloride	531.94
562	94lbs	Premium Plus C Cement	5,538.51
165	lbs	FL-52	954.28
8	gals	FP-6L	179.31
1312	lbs	MPA-5	606.47
500	lbs	SealBond Plus	508.48
350	lbs	Granulated Sugar	288.96
8	lbs	Static Free	70.00
164	lbs	BA-10A	722.83
1	ea	9-5/8" Top Cem Plug, Nitrile cvr, Phen	86.86
50	bbbs	SEALBOND II SPACER 25 W/45 LB BAG	5,829.60
Product Material Subtotal:			\$20,181.74

#### Service Charges

QTY	UNIT	PRODUCT DESCRIPTION	NET AMOUNT
1	ea	Personnel Per Diem Chrg - Cement Svc	210.00
1882	cu ft	Bulk Materials Blending Charge	2,205.23
1	job	Automatic Density System	427.85
Service Charges Subtotal:			\$2,843.08

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 Date: June 9, 2015



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### PRICE ESTIMATE

#### Equipment

QTY	UNIT	PRODUCT DESCRIPTION	NET AMOUNT
1	day	Hi-Volume Air Compressor	160.18
1	6hrs	Cement Pumping, 5001 - 6000 ft	1,574.88
3	pump/hr	Fuel per pump charge - cement	45.31
1	job	Fas-Lok Cement Head	178.45
1	job	Data Acquisition, Cement, Standard	457.95
180	miles	Mileage, Heavy Vehicle	458.60
90	miles	Mileage, Auto, Pick-Up or Treating Van	129.65
1	4hrs	Cement Pump, Reserve, Init. hrs	1,155.63
2	hrs	Cement Pump, Reserve, After init.	294.55
1	job	Field Storage Bin	355.83
1	job	Centrifugal Transfer Pump, Trailer	335.40
Equipment Subtotal:			\$5,146.43

#### Freight/Delivery Charges

QTY	UNIT	PRODUCT DESCRIPTION	NET AMOUNT
2839	tonmi	Bulk Delivery, Dry Products	2,404.92
Freight/Delivery Charges Subtotal:			\$2,404.92
<b>TOTAL:</b>			<b>\$30,576.17</b>

Customer will be charged for all 'SPECIAL PROPPANTS' delivered to location, whether they are pumped or not. All proppants other than standard grade frac sand are considered 'SPECIAL PROPPANTS'. The technical data contained in this proposal is based on the best information available at the time of writing and is subject to further analysis and testing. The pricing data contained in this proposal are estimates only and may vary depending on the work actually performed. Pricing does not include federal, state and local taxes or royalties. This quotation is based on Baker Hughes being awarded the work on a first call basis and within thirty (30) days of the proposal date. These prices will be subject to review if the work is done after thirty (30) days from the proposal date, or on a second or third call basis.

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP  
Well Name: Gadwall 2 State 1H  
Job Description: Intermediate Casing - Two Stage Option  
Date: June 9, 2015



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## **JOB AT A GLANCE**

Depth (TVD)	5,300 ft
Depth (MD)	5,300 ft
Hole Size	12.25 in
Casing Size/Weight	9 5/8 in, 40 lbs/ft
Pump Via	9 5/8" O.D. (8.835" I.D) 40
Total Mix Water Required	12,135 gals
Stage No: 1	Float/Landing Collar set @ 5,255 ft
<b>Spacer</b>	
Fresh Water	10 bbls
Density	8.3 ppg
<b>Spacer</b>	
SealBond II 100	50 bbls
<b>Lead Slurry</b>	
60:40 Poz:Class C	680 sacks
Density	12.8 ppg
Yield	1.66 cf/sack
<b>Tail Slurry</b>	
60:40 Poz:Class C (MPA)	450 sacks
Density	13.8 ppg
Yield	1.38 cf/sack
<b>Displacement</b>	
Mud	398 bbls
Density	10.0 ppg

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP  
**Well Name:** Gadwall 2 State 1H  
**Job Description:** Intermediate Casing - Two Stage Option  
**Date:** June 9, 2015



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**JOB AT A GLANCE (Continued)**

<b>Stage No:</b>	<b>2</b>	<b>Stage Collar set @</b>	<b>2,150 ft</b>
<b>Spacer</b>			
<b>SealBond II</b>			20 bbls
<b>Lead Slurry</b>			
<b>60:40 Poz:Class C</b>			355 sacks
<b>Density</b>			12.8 ppg
<b>Yield</b>			1.66 cf/sack
<b>Tail Slurry</b>			
<b>60:40 Poz:Class C</b>			150 sacks
<b>Density</b>			13.8 ppg
<b>Yield</b>			1.38 cf/sack
<b>Displacement</b>			
<b>Mud</b>			163 bbls
<b>Density</b>			10.0 ppg

\* Verify the pipe sizes, depths and volume calculations with the operator's representative.

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP  
 Well Name: Gadwall 2 State 1H  
 Job Description: Intermediate Casing - Two Stage Option  
 Date: June 9, 2015



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## WELL DATA

### ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
12.615 CASING	2,100	2,100
12.250 HOLE	5,300	5,300

### SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
9.625	8.835	40	5,300	5,300

**STAGE: 1**      Float/Landing Collar set @      5,255 ft  
                     Mud Density      10.00 ppg  
                     Est. Static Temp.      120 ° F  
                     Est. Circ. Temp.      106 ° F

### VOLUME CALCULATIONS

2,055 ft    x    0.3132 cf/ft    with    75 % excess    =    1126.2 cf  
 1,095 ft    x    0.3132 cf/ft    with    75 % excess    =    600.2 cf  
       45 ft    x    0.4257 cf/ft    with    0 % excess    =    19.2 cf (inside pipe)  
    **TOTAL SLURRY VOLUME**    =    1745.6 cf  
    =    311 bbls

**STAGE: 2**      Stage Collar set @      2,150 ft  
                     Mud Density      10.00 ppg  
                     Est. Static Temp.      96 ° F  
                     Est. Circ. Temp.      90 ° F

### VOLUME CALCULATIONS

1,606 ft    x    0.3627 cf/ft    with    0 % excess    =    582.3 cf  
       494 ft    x    0.3627 cf/ft    with    0 % excess    =    179.3 cf  
       50 ft    x    0.3132 cf/ft    with    75 % excess    =    27.4 cf  
    **TOTAL SLURRY VOLUME**    =    789.0 cf  
    =    141 bbls

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP  
**Well Name:** Gadwall 2 State 1H  
**Job Description:** Intermediate Casing - Two Stage Option  
**Date:** June 9, 2015



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## **FLUID SPECIFICATIONS**

### **STAGE NO. 1**

Spacer 10.0 bbls Fresh Water @ 8.34 ppg  
 Spacer 50.0 bbls SealBond II 100 + 10 lbs/bbl SealBond Plus

<b><u>FLUID</u></b>	<b><u>VOLUME CU-FT</u></b>	<b><u>VOLUME FACTOR</u></b>	<b><u>AMOUNT AND TYPE OF CEMENT</u></b>
Lead Slurry	1126	/ 1.66	= 680 sacks (60:40) Poz (Fly Ash):Premium Plus C Cement + 0.005 lbs/sack Static Free + 5% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.25 lbs/sack Cello Flake + 5 lbs/sack LCM-1 + 0.25% bwoc FL- 52 + 0.005 gps FP-6L + 1.5% bwoc Sodium Metasilicate + 81.5% Fresh Water
Tail Slurry	619	/ 1.38	= 450 sacks (60:40) Poz (Fly Ash):Premium Plus C Cement + 0.005 lbs/sack Static Free + 5% bwow Sodium Chloride + 0.25 lbs/sack Cello Flake + 0.005 gps FP-6L + 0.25% bwoc Sodium Metasilicate + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 65.1% Fresh Water
Displacement			398.5 bbls Mud @ 10 ppg

### **CEMENT PROPERTIES**

	<b>SLURRY NO.1</b>	<b>SLURRY NO.2</b>
Slurry Weight (ppg)	12.80	13.80
Slurry Yield (cf/sack)	1.66	1.38
Amount of Mix Water (gps)	8.01	6.40
Amount of Mix Fluid (gps)	8.02	6.41
Estimated Pumping Time - 70 BC (HH:MM)	4:30	2:30

### **COMPRESSIVE STRENGTH**

17 hrs @ 100 ° F (psi)	500	
24 hrs @ 100 ° F (psi)	875	
72 hrs @ 100 ° F (psi)	1625	
7 hrs @ 112 ° F (psi)		500
24 hrs @ 112 ° F (psi)		1900
72 hrs @ 112 ° F (psi)		2700

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP  
**Well Name:** Gadwall 2 State 1H  
**Job Description:** Intermediate Casing - Two Stage Option  
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## FLUID SPECIFICATIONS (Continued)

### STAGE NO. 2

Spacer 20.0 bbls SealBond II + 10 lbs/bbl SealBond Plus  
 Lead Slurry 582 / 1.66 = 355 sacks (60:40) Poz (Fly Ash):Premium Plus C  
 Cement + 0.2% bwoc R-3 + 0.005 lbs/sack Static  
 Free + 5% bwow Sodium Chloride + 0.25 lbs/sack  
 Cello Flake + 5 lbs/sack LCM-1 + 0.25% bwoc FL-  
 52 + 0.005 gps FP-6L + 1.5% bwoc Sodium  
 Metasilicate + 81.5% Fresh Water

FLUID	VOLUME CU-FT	VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Tail Slurry	207	/ 1.38	= 150 sacks (60:40) Poz (Fly Ash):Premium Plus C Cement + 0.005 lbs/sack Static Free + 5% bwow Sodium Chloride + 0.25 lbs/sack Cello Flake + 0.005 gps FP-6L + 0.25% bwoc Sodium Metasilicate + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 65.1% Fresh Water
Displacement			163.0 bbls Mud @ 10 ppg

### CEMENT PROPERTIES

	SLURRY NO.1	SLURRY NO.2
Slurry Weight (ppg)	12.80	13.80
Slurry Yield (cf/sack)	1.66	1.38
Amount of Mix Water (gps)	8.01	6.40
Amount of Mix Fluid (gps)	8.02	6.41
Estimated Pumping Time - 70 BC (HH:MM)	4:30	2:30

### COMPRESSIVE STRENGTH

15 hrs @ 90 ° F (psi)	500	
24 hrs @ 90 ° F (psi)	875	
72 hrs @ 90 ° F (psi)	1625	
7 hrs @ 113 ° F (psi)		500
24 hrs @ 113 ° F (psi)		1900
72 hrs @ 113 ° F (psi)		2700



**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP  
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**FLUID SPECIFICATIONS (Continued)**

- \* The above slurries are only estimates at the time the proposal was written.
- \* Cement volumes may change pending a caliper log.
- \* Run SealBond on second stages only if there is no circulation when DV Tool is opened.
- \* Do not pump any water spacer between SealBond II and lead cement slurry.
- \* Verify displacement fluid volumes and densities with company rep.
- \* All slurries are to be optimized and tested by the Region Laboratory prior to cementing.
- \* Check Mud/Spacer compatibility prior to job.

**Operator:** DEVON ENERGY PRODUCTION COMPANY LP  
**Well Name:** Gadwall 2 State 1H  
**Job Description:** Intermediate Casing - Two Stage Option  
**Date:** June 9, 2015



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### PRICE ESTIMATE

#### Product Material

QTY	UNIT	PRODUCT DESCRIPTION	NET AMOUNT
1397	lbs	Sodium Metasilicate	1,231.46
170	lbs	R-3	140.35
5175	lbs	LCM-1	1,357.40
409	lbs	Cello Flake	448.47
981	74lbs	Poz (Fly Ash)	3,585.56
5058	lbs	Sodium Chloride	565.48
654	94lbs	Premium Plus C Cement	6,445.17
213	lbs	FL-52	1,231.89
9	gals	FP-6L	201.72
1968	lbs	MPA-5	909.71
700	lbs	SealBond Plus	711.87
350	lbs	Granulated Sugar	288.96
9	lbs	Static Free	78.75
246	lbs	BA-10A	1,084.25
1	ea	9-5/8" Top Cem Plug, Nitrile cvr, Phen	86.86
70	bbls	SEALBOND II SPACER 25 W/45 LB BAG	8,161.44
Product Material Subtotal:			\$26,529.34

#### Service Charges

QTY	UNIT	PRODUCT DESCRIPTION	NET AMOUNT
1	ea	Personnel Per Diem Chrg - Cement Svc	210.00
2321	cu ft	Bulk Materials Blending Charge	2,719.63
1	job	Automatic Density System	427.85
Service Charges Subtotal:			\$3,357.48

Customer will be charged for all 'SPECIAL PROPPANTS' delivered to location, whether they are pumped or not. All proppants other than standard grade frac sand are considered 'SPECIAL PROPPANTS'.  
 The technical data contained in this proposal is based on the best information available at the time of writing and is subject to further analysis and testing. The pricing data contained in this proposal are estimates only and may vary depending on the work actually performed. Pricing does not include federal, state and local taxes or royalties.  
 This quotation is based on Baker Hughes being awarded the work on a first call basis and within thirty (30) days of the proposal date. These prices will be subject to review if the work is done after thirty (30) days from the proposal date, or on a second or third call basis.

Operator: DEVON ENERGY PRODUCTION COMPANY LP  
 Well Name: Gadwall 2 State 1H  
 Job Description: Intermediate Casing - Two Stage Option  
 Date: June 9, 2015



Proposal No: 991950105A

### PRICE ESTIMATE

#### Equipment

QTY	UNIT	PRODUCT DESCRIPTION	NET AMOUNT
1	day	Hi-Volume Air Compressor	160.18
1	6hrs	Cement Pumping, 5001 - 6000 ft	1,574.88
1	job	Fas-Lok Cement Head	178.45
1	job	Data Acquisition, Cement, Standard	457.95
180	miles	Mileage, Heavy Vehicle	458.60
90	miles	Mileage, Auto, Pick-Up or Treating Van	129.65
1	stage	Multiple Stage Cementing	1,048.13
1	4hrs	Cement Pump, Reserve, Init. hrs	1,155.63
2	hrs	Cement Pump, Reserve, After init.	294.55
1	job	Field Storage Bin	355.83
1	job	Centrifugal Transfer Pump, Trailer	335.40
Equipment Subtotal:			\$6,149.25

#### Freight/Delivery Charges

QTY	UNIT	PRODUCT DESCRIPTION	NET AMOUNT
3362	tonmi	Bulk Delivery, Dry Products	2,847.95
Freight/Delivery Charges Subtotal:			\$2,847.95
<b>TOTAL:</b>			<b>\$38,884.02</b>

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Operator Name: DEVON ENERGY PRODUCTION COMPANY LP  
Well Name: Gadwall 2 State 1H  
Job Description: Production Casing  
Date: June 9, 2015



Proposal No: 991950105A

### JOB AT A GLANCE

Depth (TVD)	9,580 ft
Depth (MD)	14,100 ft
Hole Size	8.75 in
Casing Size/Weight	5 1/2 in, 17 lbs/ft
Pump Via	5 1/2" O.D. (4.892" I.D) 17
Total Mix Water Required	14,369 gals
Spacer	
Fresh Water	20 bbls
Density	8.3 ppg
Spacer	
Sealbond II	40 bbls
1st Lead Slurry	
50:50:10 Poz:Premium Class	155 sacks
Density	11.8 ppg
Yield	2.30 cf/sack
Lead Slurry	
35:65:6 Poz:Premium Class H	395 sacks
Density	12.5 ppg
Yield	2.01 cf/sack
Tail Slurry	
50:50 Poz:Class H	1,385 sacks
Density	14.2 ppg
Yield	1.28 cf/sack
Displacement	
Displacement Fluid	327 bbls

\* Verify the pipe sizes, depths and volume calculations with the operator's representative.

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP  
 Well Name: Gadwall 2 State 1H  
 Job Description: Production Casing  
 Date: June 9, 2015



Proposal No: 991950105A

## WELL DATA

### ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
8.835 CASING	5,300	5,300
8.750 HOLE	14,100	9,580

### SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
5.500	4.892	17	14,100	9,580

Float/Landing Collar set @ 14,055 ft  
 Mud Density 9.50 ppg  
 Est. Static Temp. 157 ° F  
 Est. Circ. Temp. 157 ° F

### VOLUME CALCULATIONS

500 ft	x	0.2607 cf/ft	with	0 % excess	=	130.4 cf
700 ft	x	0.2526 cf/ft	with	25 % excess	=	221.0 cf
2,507 ft	x	0.2526 cf/ft	with	25 % excess	=	791.6 cf
5,593 ft	x	0.2526 cf/ft	with	25 % excess	=	1766.0 cf
45 ft	x	0.1305 cf/ft	with	0 % excess	=	5.9 cf (inside pipe)
<b>TOTAL SLURRY VOLUME</b>					=	2914.8 cf
					=	520 bbls

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP  
 Well Name: Gadwall 2 State 1H  
 Job Description: Production Casing  
 Date: June 9, 2015



Proposal No: 991950105A

## FLUID SPECIFICATIONS

Spacer 20.0 bbls Fresh Water @ 8.34 ppg  
 Spacer 40.0 bbls Sealbond II

<u>FLUID</u>	<u>VOLUME CU-FT</u>	<u>VOLUME FACTOR</u>	<u>AMOUNT AND TYPE OF CEMENT</u>
1st Lead Slurry	351	/ 2.3	= 155 sacks (50:50) Poz (Fly Ash):Premium Plus H Cement + 0.005 lbs/sack Static Free + 0.5% bwoc FL-52 + 0.3% bwoc ASA-301 + 0.005 gps FP-6L + 10% bwoc Bentonite + 0.35% bwoc R-21 + 130.6% Fresh Water
Lead Slurry	792	/ 2.01	= 395 sacks (35:65) Poz (Fly Ash):Premium Plus H Cement + 0.005 lbs/sack Static Free + 3% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.7% bwoc FL-52 + 0.3% bwoc ASA-301 + 0.005 gps FP-6L + 6% bwoc Bentonite + 105.5% Fresh Water
Tail Slurry	1772	/ 1.28	= 1385 sacks (50:50) Poz (Fly Ash):Premium Plus H Cement + 0.005 lbs/sack Static Free + 5% bwow Sodium Chloride + 0.3% bwoc CD-32 + 0.5% bwoc FL-25 + 0.4% bwoc FL-52 + 0.005 gps FP-6L + 0.5% bwoc Sodium Metasilicate + 57.2% Fresh Water
Displacement			326.7 bbls Displacement Fluid

## **CEMENT PROPERTIES**

	<b>SLURRY NO.1</b>	<b>SLURRY NO.2</b>	<b>SLURRY NO.3</b>
Slurry Weight (ppg)	11.80	12.50	14.20
Slurry Yield (cf/sack)	2.30	2.01	1.28
Amount of Mix Water (gps)	13.15	11.00	5.76
Amount of Mix Fluid (gps)	13.16	11.01	5.77
Estimated Pumping Time - 70 BC (HH:MM)	6:30	5:00	5:00
Free Water (mls) @ ° F @ 90 ° Angle		2.5	0.0
Fluid Loss (cc/30min) at 1000 psi and ° F	300.0	300.0	50.0

## **COMPRESSIVE STRENGTH**

12 hrs @ 157 ° F (psi)	150	300	600
24 hrs @ 157 ° F (psi)	250	650	1700
72 hrs @ 157 ° F (psi)	350	1100	2000

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP  
**Well Name:** Gadwall 2 State 1H  
**Job Description:** Production Casing  
**Date:** June 9, 2015



**Proposal No:** 991950105A

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**FLUID SPECIFICATIONS (Continued)**

- \* All slurries are to be optimized and tested by the Region Laboratory prior to cementing.
- \* The above slurries are only estimates at the time the proposal was written.
- \* Cement volumes may change pending a caliper log

Operator: DEVON ENERGY PRODUCTION COMPANY LP  
 Well Name: Gadwall 2 State 1H  
 Job Description: Production Casing  
 Date: June 9, 2015



Proposal No: 991950105A

### PRICE ESTIMATE

#### Product Material

QTY	UNIT	PRODUCT DESCRIPTION	NET AMOUNT
3364	lbs	Bentonite	383.33
582	lbs	Sodium Metasilicate	513.03
69	lbs	R-3	56.97
50	lbs	Cello Flake	54.83
909	74lbs	Poz (Fly Ash)	3,322.40
4415	lbs	Sodium Chloride	493.60
46	lbs	R-21	112.75
350	lbs	CD-32	1,000.83
772	lbs	FL-52	4,464.86
10	gals	FP-6L	224.14
582	lbs	FL-25	2,827.94
350	lbs	Granulated Sugar	288.96
10	lbs	Static Free	87.51
143	lbs	ASA-301	622.59
1027	94lbs	Premium Plus H Cement	10,925.23
40	bbls	SEALBOND II SPACER 25 W/45 LB BAG	4,663.68
Product Material Subtotal:			\$30,042.65

#### Service Charges

QTY	UNIT	PRODUCT DESCRIPTION	NET AMOUNT
1	ea	Personnel Per Diem Chrg - Cement Svc	210.00
2346	cu ft	Bulk Materials Blending Charge	2,748.93
1	job	Automatic Density System	427.85
Service Charges Subtotal:			\$3,386.78

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Operator: DEVON ENERGY PRODUCTION COMPANY LP  
 Well Name: Gadwall 2 State 1H  
 Job Description: Production Casing  
 Date: June 9, 2015



Proposal No: 991950105A

### PRICE ESTIMATE

#### Equipment

QTY	UNIT	PRODUCT DESCRIPTION	NET AMOUNT
1	day	Hi-Volume Air Compressor	160.18
1	8hrs	Cement Pumping, 14001 - 15000 ft	7,901.25
1	job	Fas-Lok Cement Head	178.45
1	job	Data Acquisition, Cement, Standard	457.95
520	miles	Mileage, Heavy Vehicle	1,324.83
130	miles	Mileage, Auto, Pick-Up or Treating Van	187.27
1	4hrs	Cement Pump, Reserve, 1st 6 hrs	1,155.63
2	job	Field Storage Bin	711.65
1	job	Centrifugal Transfer Pump, Trailer	335.40
Equipment Subtotal:			\$12,412.61

#### Freight/Delivery Charges

QTY	UNIT	PRODUCT DESCRIPTION	NET AMOUNT
3917	tonmi	Bulk Delivery, Dry Products	3,318.09
Freight/Delivery Charges Subtotal:			\$3,318.09
<b>TOTAL:</b>			<b>\$49,160.13</b>

Customer will be charged for all 'SPECIAL PROPPANTS' delivered to location, whether they are pumped or not. All proppants other than standard grade frac sand are considered 'SPECIAL PROPPANTS'. The technical data contained in this proposal is based on the best information available at the time of writing and is subject to further analysis and testing. The pricing data contained in this proposal are estimates only and may vary depending on the work actually performed. Pricing does not include federal, state and local taxes or royalties. This quotation is based on Baker Hughes being awarded the work on a first call basis and within thirty (30) days of the proposal date. These prices will be subject to review if the work is done after thirty (30) days from the proposal date, or on a second or third call basis.

## CONDITIONS



**The services and products will be provided under the attached Baker Hughes Incorporated Worldwide Terms and Conditions. By requesting that Baker Hughes provide the services and products described herein, Customer accepts all of the terms and conditions of this proposal, including the attached Baker Hughes Incorporated Worldwide Terms and Conditions. In the event that Customer and Baker Hughes have executed a Master Services Agreement covering the services and products to be provided, such Master Services Agreement shall govern in place of the Baker Hughes Worldwide Terms and Conditions.**



**NOTE: THIS AGREEMENT CONTAINS PROVISIONS THAT INDEMNIFY AND/OR RELEASE THE INDEMNIFIED AND/OR RELEASED PARTY FROM THE CONSEQUENCES OF ITS OWN NEGLIGENCE AND OTHER LEGAL FAULT.**

**TERMS AND CONDITIONS**

**Worldwide**

Orders for rental equipment ("Equipment"), services ("Services"), and the supply or sale of products, chemicals, or equipment ("Products") to be provided by Baker Hughes Incorporated through its direct or indirect subsidiaries (in each case such subsidiary is referred to herein as "BHI") and shall be severally liable for all obligations of BHI herein arising from or related to the order) to its customers (each a "Customer") are subject to acceptance by BHI, and any orders so accepted will be governed by the terms and conditions stated herein and any additional terms proposed or agreed to in writing by an authorized representative of BHI (these terms and conditions and any such additional terms collectively referred to herein as the "Agreement").

**1. PAYMENT TERMS**

Unless alternate payment terms are specified or approved by the BHI Credit Department, all charges billed by BHI must be paid within thirty (30) days of the date of invoice. For invoices unpaid after thirty (30) days, at BHI's option, discounts from list price may be revoked and interest may be charged at the rate of ten percent (10%) per annum unless such rate contravenes local law in which case the interest will accrue at the maximum rate allowed by law. Operating, production or well conditions that prevent satisfactory operation of Equipment, Services or Products do not relieve Customer of its payment responsibility.

**2. CANCELLATION AND RETURNS**

Products: Orders for Products that are subject to cancellation after acceptance by BHI, but before delivery, will be subject to a restocking charge of at least twenty-five percent (25%), plus any packing and transportation costs incurred before delivery. Products specially built or manufactured to Customer specifications, or orders for substantial quantities manufactured specially for Customer, may not be cancelled.

Products may be returned for credit only with prior written authorization from BHI. Such Products must be unused, in reusable condition, and with original unopened containers. Credit will be issued for the quantity returned at the original purchase price, less a restocking charge of at least twenty-five percent (25%) and any actual packing and transportation costs incurred by BHI. No credit will be given for shipping charges incurred by Customer.

Equipment/Services: In the event Customer cancels an order for Services, Customer shall be liable for all costs incurred by BHI in the mobilization/demobilization related thereto, and any other reasonable costs incurred by BHI incident to such cancellation. In the event Customer cancels an order for Equipment, Customer shall be liable for any transportation costs incurred by BHI in the mobilization/demobilization of the Equipment. In addition, a restocking charge of at least twenty-five percent (25%) of the original Equipment order may be applied at BHI's sole discretion.

**3. THIRD-PARTY CHARGES, TAXES**

Customer shall pay all third-party charges, in compliance with BHI's current price list, and any sales, use, rental or other taxes that may be applicable to transactions hereunder. Customer shall pay all applicable customs, excise, import and other duties unless otherwise agreed to in writing by an authorized representative of BHI. Customer shall provide necessary import licenses and extensions thereof.

**4. RISK OF LOSS AND TITLE, CONSIGNMENT, STORAGE**

Unless otherwise agreed to in writing between BHI and Customer, (i) for Product sales within the United States of America, title and risk of loss shall pass to Customer as soon as the Products depart BHI's point of origin; and (ii) for Product sales outside the United States of America, INCOTERM 2010 "CPT" shall apply with the following exception: TITLE AND RISK OF LOSS REMAIN WITH BHI UNTIL THE PRODUCTS REACH THE PORT OF ENTRY. For Products provided on consignment, the risk of loss shall pass to Customer as soon as the Products depart BHI's point of origin; however, the title shall remain with BHI until the Product is used by Customer.

In the event BHI agrees to store Products after title passes to Customer, the risk of loss shall remain with Customer. If any such Products remain on BHI's premises for more than two (2) years from the date initially placed in storage, title shall revert back to BHI, and BHI may resell or scrap any such Products with no liability to Customer for any proceeds generated therefrom.

**5. LIABILITIES, RELEASES AND INDEMNIFICATION**

A. In this Agreement (i) "BHI Indemnitees" means BHI, its parent, subsidiary and affiliated or related companies; its subcontractors at any tier; and the officers, directors, employees, consultants, and agents of all of the foregoing; (ii) "Claims" means all claims, demands, causes of action, liabilities, damages, judgments, fines, penalties, awards, losses, costs, expenses (including, without limitation, attorneys' fees and costs of litigation) of any kind or character arising out of, or related to, the performance of or subject matter of this Agreement; (iii) "Consequential Damages" means any indirect, special, punitive, exemplary or consequential damages or losses (whether foreseeable or not at the date of this Agreement) under applicable law and damages for lost production, lost revenue, lost product, lost profit, lost business, lost business opportunities, or charges for time, regardless of whether the same would be considered direct, indirect, special, punitive, exemplary or consequential damages or losses under applicable law; (iv) "Customer Indemnitees" means Customer, its parent, subsidiary and affiliated or related companies; its co-lessees, co-owners, partners, joint operators and joint ventures; its client or customer if it is not the end user of the Equipment, Services, or Products; its other contractors at any tier; and the officers, directors, employees, consultants, and agents of all of the foregoing; (v) "Cuttings and Waste" means any drill cuttings and associated muds, waste or materials from the well arising from or processed pursuant to this Agreement; and (vi) "Tools" means Equipment and any of BHI Indemnitees' instruments, equipment, or tools.

B. BHI SHALL RELEASE, INDEMNIFY, DEFEND AND HOLD CUSTOMER INDEMNITEES HARMLESS FROM AND AGAINST ANY AND ALL CLAIMS ARISING OUT OF OR RELATED TO (I) PERSONAL OR BODILY INJURY, ILLNESS, SICKNESS, DISEASE OR DEATH OF ANY MEMBER OF BHI INDEMNITEES, AND (II) LOSS, DAMAGE OR DESTRUCTION OF REAL OR PERSONAL PROPERTY, WHETHER OWNED, LEASED, OR CHARTERED, OF ANY MEMBER OF BHI INDEMNITEES.

C. CUSTOMER SHALL RELEASE, INDEMNIFY, DEFEND AND HOLD BHI INDEMNITEES HARMLESS FROM AND AGAINST ANY AND ALL CLAIMS ARISING OUT OF OR RELATED TO (I) PERSONAL OR BODILY INJURY, ILLNESS, SICKNESS, DISEASE OR DEATH OF ANY MEMBER OF CUSTOMER INDEMNITEES, AND (II) LOSS, DAMAGE OR DESTRUCTION OF REAL OR PERSONAL PROPERTY, WHETHER OWNED, LEASED, OR CHARTERED, OF ANY MEMBER OF CUSTOMER INDEMNITEES.

D. SHOULD TOOLS BECOME LOST OR DAMAGED IN THE WELL OR HOLE WHEN PERFORMING OR ATTEMPTING TO PERFORM THE SERVICES HERUNDER, IT IS UNDERSTOOD THAT CUSTOMER SHALL MAKE EVERY EFFORT TO RECOVER THE LOST OR DAMAGED TOOLS AT ITS SOLE COST. CUSTOMER SHALL ASSUME THE ENTIRE RESPONSIBILITY FOR FISHING OPERATIONS IN THE RECOVERY OR ATTEMPTED RECOVERY OF ANY SUCH LOST OR DAMAGED TOOLS. NONE OF BHI'S EMPLOYEES ARE AUTHORIZED TO DO ANYTHING WHATSOEVER, NOR SHALL ANY OF BHI'S EMPLOYEES BE REQUIRED BY CUSTOMER TO DO ANYTHING, OTHER THAN CONSULT IN AN ADVISORY CAPACITY WITH CUSTOMER IN CONNECTION WITH SUCH FISHING OPERATIONS.

NOTWITHSTANDING PARAGRAPH B. ABOVE, SHOULD CUSTOMER FAIL TO RECOVER SUCH TOOLS LOST IN THE WELL, OR SHOULD SUCH TOOLS BECOME DAMAGED IN THE WELL, OR DAMAGED DURING RECOVERY, CUSTOMER SHALL REIMBURSE BHI FOR THE COST OF REPAIRING ANY TOOLS SO DAMAGED, OR THE REPLACEMENT VALUE OF ANY SUCH TOOLS THAT ARE LOST OR NOT REPAIRABLE.

FURTHER, NOTWITHSTANDING PARAGRAPH B. ABOVE, ALL RISKS ASSOCIATED WITH LOSS OF OR DAMAGE TO TOOLS WHILE IN THE CUSTODY OR CONTROL OF CUSTOMER OR DURING TRANSPORTATION ARRANGED BY OR CONTROLLED BY CUSTOMER, SHALL BE BORNE BY CUSTOMER.

E. NOTWITHSTANDING ANYTHING CONTAINED IN THIS AGREEMENT TO THE CONTRARY, CUSTOMER SHALL RELEASE, INDEMNIFY, DEFEND AND HOLD BHI INDEMNITEES HARMLESS FROM AND AGAINST ANY AND ALL CLAIMS ASSERTED BY OR IN FAVOR OF ANY PERSON, PARTY, OR ENTITY (INCLUDING BHI INDEMNITEES) ARISING OUT OF OR RELATED TO: (I) LOSS OF OR DAMAGE TO ANY WELL OR HOLE (INCLUDING BUT NOT LIMITED TO THE COSTS OF RE-DRILL AND SIDETRACK); (II) BLOWOUT, FIRE, EXPLOSION, CRATERING OR ANY UNCONTROLLED WELL CONDITION (INCLUDING BUT NOT LIMITED TO THE COSTS TO CONTROL A WILD WELL AND THE REMOVAL OF DEBRIS); (III) DAMAGE TO ANY RESERVOIR, GEOLOGICAL FORMATION OR UNDERGROUND STRATA OR THE LOSS OF OIL, WATER OR GAS THEREFROM; (IV) THE USE OF BHI INDEMNITEES' RADIOACTIVE TOOLS OR ANY CONTAMINATION RESULTING THEREFROM (INCLUDING BUT NOT LIMITED TO RETRIEVAL OR CONTAINMENT AND CLEAN-UP); (V) POLLUTION OR CONTAMINATION OF ANY KIND INCLUDING BUT NOT LIMITED TO THE COST OF CONTROL, REMOVAL, CLEAN-UP AND REMEDIATION, OR (VI) DAMAGE TO, OR ESCAPE OF ANY SUBSTANCE FROM, ANY PIPELINE, VESSEL, OR STORAGE OR PRODUCTION FACILITY.

F. CUSTOMER ACKNOWLEDGES THAT CUTTINGS AND WASTE REMAIN CUSTOMER'S RESPONSIBILITY. CUSTOMER SHALL RELEASE, INDEMNIFY, DEFEND AND HOLD BHI INDEMNITEES HARMLESS FROM AND AGAINST ANY AND ALL CLAIMS, ASSERTED BY OR IN FAVOR OF ANY PERSON OR ENTITY ARISING OUT OF OR RELATED TO THE TRANSPORTATION, STORAGE, TREATMENT, DISPOSAL OR HANDLING OF CUTTINGS AND WASTE, INCLUDING, WITHOUT LIMITATION, CONTAMINATION OF, OR ADVERSE EFFECTS ON THE ENVIRONMENT OR ANY FORM OF PROPERTY, OR ANY VIOLATION OR ALLEGED VIOLATION OF STATUTES, ORDINANCES, LAWS, ORDERS, RULES AND REGULATIONS (INCLUDING, WITHOUT LIMITATION, ALL CLAIMS UNDER THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT ("CERCLA"), 42 U.S.C. §§ 9601 ET SEQ., OR OTHER APPLICABLE STATUTES OR REGULATIONS).

G. CUSTOMER SHALL RELEASE, DEFEND, INDEMNIFY AND HOLD BHI INDEMNITEES HARMLESS FROM AND AGAINST ANY CLAIMS FOR CONSEQUENTIAL DAMAGES ASSERTED BY OR IN FAVOR OF ANY MEMBER OF CUSTOMER INDEMNITEES. BHI SHALL RELEASE, DEFEND, INDEMNIFY AND HOLD CUSTOMER INDEMNITEES HARMLESS FROM AND AGAINST ANY CLAIMS FOR CONSEQUENTIAL DAMAGES ASSERTED BY OR IN FAVOR OF ANY MEMBER OF BHI INDEMNITEES.

H. In the event this agreement is subject to the indemnity or release limitations in Chapter 127 of the Texas Civil Practices and Remedies Code (or any successor statute), and so long as such limitations are in force, each party covenants and agrees to support the mutual indemnity and release obligations contained in Paragraphs B. and C. above by carrying equal amounts of insurance (or qualified self-insurance) in an amount not less than U.S. \$5,000,000.00 for the benefit of the other party as indemnitee.

I. THE EXCLUSIONS OF LIABILITY, RELEASES AND INDEMNITIES SET FORTH IN PARAGRAPHS B. THROUGH G. OF THIS ARTICLE 5, AND ARTICLES 6 AND 10, SHALL APPLY TO ANY CLAIM(S) WITHOUT REGARD TO THE CAUSE(S) THEREOF INCLUDING BUT NOT LIMITED TO PRE-EXISTING CONDITIONS, WHETHER SUCH CONDITIONS BE PATENT OR LATENT, THE UNSEAWORTHINESS OF ANY VESSEL OR VESSELS, IMPERFECTION OF MATERIAL, DEFECT OR FAILURE OF PRODUCTS OR EQUIPMENT, BREACH OF REPRESENTATION OR WARRANTY (EXPRESS OR IMPLIED), ULTRAHAZARDOUS ACTIVITY, STRICT LIABILITY, TORT, BREACH OF CONTRACT, BREACH OF DUTY (STATUTORY OR OTHERWISE), BREACH OF ANY SAFETY REQUIREMENT OR REGULATION, OR THE NEGLIGENCE, GROSS NEGLIGENCE, WILLFUL MISCONDUCT, OR OTHER LEGAL FAULT OR RESPONSIBILITY OF ANY PERSON, PARTY, OR ENTITY (INCLUDING THE INDEMNIFIED OR RELEASED PARTY), WHETHER SUCH FORM OF NEGLIGENCE BE SOLE, JOINT OR CONCURRENT, ACTIVE OR PASSIVE.

J. REDRESS UNDER THE INDEMNITY PROVISIONS SET FORTH IN THIS ARTICLE 5 SHALL BE THE EXCLUSIVE REMEDIES AVAILABLE TO THE PARTIES HERETO FOR THE CLAIMS COVERED BY SUCH PROVISIONS.

**6. DIRECTIONAL DRILLING**

Customer shall furnish BHI with a well location plan (certified by Customer as correct) setting out the surface location of the well, the lease, license, or property boundary lines, and the bottom hole location of Customer's directionally drilled well. If, in the course of drilling the well, it becomes evident to BHI that the certified plan is in error, BHI shall notify Customer of the error, and Customer shall be responsible to regulate all directional drilling factors so that Customer's well bottom hole location will be situated on Customer's property, license, or leasehold at total depth of the well being drilled. CUSTOMER SHALL RELEASE, DEFEND, INDEMNIFY AND HOLD BHI INDEMNITEES HARMLESS FROM AND AGAINST ANY CLAIMS ARISING OUT OF, OR RELATED TO, SUBSURFACE TRESPASS ARISING OUT OF DIRECTIONAL DRILLING OPERATIONS OR OTHER OPERATIONS PERFORMED BY BHI INDEMNITEES OR CUSTOMER INDEMNITEES.

**7. CUSTOMER WARRANTY/BINDING AUTHORITY**

If Customer is not the sole owner of the mineral interests, the well or the field, Customer's request for Services, Equipment or Products shall constitute Customer's warranty that Customer is the duly constituted agent of each and every owner and has full authority to represent the interests of the same with respect to all decisions taken throughout the provision of any Services, Equipment or Products hereunder. CUSTOMER SHALL RELEASE, DEFEND, INDEMNIFY AND HOLD BHI INDEMNITEES HARMLESS FROM AND AGAINST ALL CLAIMS RESULTING FROM THE ALLEGATION BY ANY PERSON OR ENTITY THAT CUSTOMER HAS MISREPRESENTED OR LACKED SUFFICIENT AUTHORITY TO REPRESENT SUCH PERSON OR ENTITY AS WARRANTED BY CUSTOMER IN THIS ARTICLE.

**8. ACCESS TO WELL AND WELL SITE STORAGE**

With respect to onshore and offshore operations, Customer shall provide at its expense adequate means of transportation required for Tools, Products and BHI personnel to gain access to or return from a well site, and

*Customer shall provide proper storage space at the well site, meeting all applicable safety and security requirements and consistent with good industry practices, for the Tools and Products, including, without limitation, all explosive and radioactive materials.*

Radioactive sources which may be used in BHL's Services are potentially dangerous. Customer agrees to comply with all applicable governmental regulations governing the use and handling of radioactive sources. In the event a radioactive source becomes stuck in a well, Customer, at Customer's expense, shall remove the source.

## 10. WARRANTY

A. Services. BH warrants that the Services shall conform to the material aspects of the specifications agreed to in writing by BH and Customer. In the event that the Services do not conform to the specifications, Customer shall

**B Equipment** BH warrants that the Equipment will be of the following description:

Customer, and will be in good operating condition. Liability for loss or damage to Equipment is not for the benefit of

thirty (30) days after delivery of the particular Products.

2) Drill Bits: BHJ warrants that the drill bits to be provided by BHJ are new/unused for this.

days of the failure date of the electric submersible pumps or associated cable or surface equipment.

the specially chemical Products to be provided by BHI pursuant to this Agreement shall upon departure from BHI's point of origin, conform to the published physical and chemical specifications established by BHI for each such Product. If any of the specially chemical Products fail to conform to such specifications, BHI, at its option, shall replace the non-conforming specially chemical Products with the type originally furnished or issue credit to the Customer, provided BHI is notified thereof in writing within thirty (30) days of the specially chemical Products depart BHI's point of origin.

[illegible]

charge Services. The amount of such credit shall be limited to 3% of the amount charged for the nonconforming goods or services.

[illegible]

the warranty period for any repaired or replaced Products shall be only for the remainder of the original warranty period.

...LIMITATION, DECISIONS BASED ON ANY OIL AND GAS EVALUATIONS,

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AND/OR RECOMMENDATIONS, CLAIMS ARISING OUT OF THE USE OF SUCH INTERPRETATIONS.

processes and will not be responsible to Customer for accidental or intentional interception of such data by others.

shall comply with its obligations under REACH,

... OR NON-CONFORMING SERVICES, EQUIPMENT OR PRODUCTS.

In some locations, lost equipment indemnity buy-back ("LEIB") is available for some Tools. LEIB must be purchased by Customer prior to the Tools leaving BH's point of origin. Regardless of LEIB, Customer shall make every reasonable effort to recover BH's Tools lost or damaged in a well or hole in accordance with Paragraph 5D. BH reserves the right not to offer LEIB at its sole discretion.

officers, directors, employees, consultants and agents.

It expressly reserves the right to change or modify the design and construction of any of its Products without obligation to furnish or install such changes or modifications on Products previously or subsequently sold.

changes or modifications on Products previously sold

[illegible]

THE ENTIRE RESPONSIBILITY OF BHI CONCERNING

the other party shall maintain all data and information obtained from the other party in strict confidence, subject only to the disclosure required by law or legal process. In the event that BHI owns copyrights to patents or has filed patent applications, any technology related to the Sale of Products or Equipment furnished by BHI hereunder, and it makes any improvements on such technology, then such improvements shall not fall within the confidentiality obligations of BHI-included herein, and BHI shall own all such improvements, including drawings, specifications, calculations and other documents.

the purpose of manufacturing, similar Products or Equipment.

[illegible]

... shall not send any circular or other person or entity attach or levy Customer's property or

equipment, BHI shall immediately have the right, without notice and without liability for trespass or damages, to relate and remove any of its Products or Equipment wherever it may be found. CUSTOMER SHALL RELEASE, DEFEND, INDEMNIFY AND HOLD BHI HARMLESS FROM ANY AND ALL LIENS AND ENCUMBRANCES AGAINST PRODUCTS OR EQUIPMENT FURNISHED HEREUNDER AND SHALL RETURN SAME PROMPTLY TO BHI FREE OF ANY LIENS OR ENCUMBRANCES.

#### 17. FORCE MAJEURE

If, after the execution of this Agreement, by reason of Force Majeure to deny out any of its obligations under this Agreement, other than obligations to pay money, then on such party giving notice and particulars in writing to the other party, within a reasonable time after the occurrence of the cause relied upon, such obligations shall be suspended. "Force Majeure" shall include any event that is beyond the reasonable control of the party so affected including, without limitation, acts of God, laws and regulations, government action, war, civil disturbances, hijack, piracy, criminal action by a third party, threats or acts of terrorism, strikes and labor problems, delays of vendors or carriers, lightning, fire, flood, washout, storm, breakage or accident to equipment or machinery, and shortage of raw materials. In the event that any suspension due to Force Majeure exceeds ten (10) consecutive days, either party may terminate this Agreement by written notice to the other party, and Customer shall be liable for demobilization and any other reasonable costs incurred by BHI incidental to such termination.

#### 18. INDEPENDENT CONTRACTOR

It is understood that BHI is an independent contractor, and that neither BHI nor its principals, partners, employees or subcontractors are servants, agents or employees of Customer.

In all cases where BHI's employees (defined to include BHI's and its subcontractors' direct, borrowed, special, or statutory employees) are covered by the Louisiana Workers' Compensation Act, La. R.S. 23:102 et seq., BHI and Customer agree that all Services, Products and Equipment provided by BHI and BHI's employees pursuant to this Agreement are an integral part of, and are essential to the ability of Customer to generate Customer's goods, products, and services for the purpose of La. R.S. 23:106 (A) (1). Furthermore, BHI and Customer agree that Customer is the statutory employer of BHI's employees for purposes of La. R.S. 23:1061 (A) (3).

#### 19. LAWS, RULES, REGULATIONS, AND EXPORT CONTROL

BHI shall comply with all laws, rules, regulations and decrees of any governmental or regulatory body having jurisdiction over the Services, Equipment or Products to be provided by BHI or the work site or that may otherwise be applicable to BHI's or Customer's performance under this Agreement.

Customer acknowledges that Equipment, Services, Products and/or related technical data covered by this Agreement may be subject to U.S. and/or foreign trade controls. Customer agrees that it will not sell, re-export or transfer Equipment, Products and/or related technical data except in full compliance with all governmental requirements including but not limited to economic sanctions and export controls administered by the U.S. Department of Treasury, U.S. Department of Commerce and U.S. Department of State. Customer agrees to comply with all BHI requests for trade compliance information, statements, and other assurances including, without limitation, requests for End-User and Route of Transaction certifications. Any breach of this provision shall be deemed a material breach of this Agreement and sufficient basis for BHI to reject any or all orders or to terminate the Agreement.

#### 20. GOVERNING LAW AND ARBITRATION

A. Except to Services, Equipment or Products provided, or to be provided, by BHI in North or South America (the "Excluded Services, Equipment or Products"), this Agreement shall be governed by the laws of the UNITED STATES OF AMERICA, and shall be construed under the principles of ENGLISH LAW, EXCLUDING CONFLICTS OF LAW AND CHOICE OF LAW PRINCIPLES. ANY DISPUTE, CONTROVERSY OR CLAIM ("DISPUTE") ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT OR THE FURNISHING OF EQUIPMENT, SERVICES OR PRODUCTS HEREUNDER SHALL BE RESOLVED

BY FINAL AND BINDING ARBITRATION CONDUCTED IN ACCORDANCE WITH THE UNCITRAL ARBITRATION RULES ("THE RULES").

The Tribunal shall be composed of three arbitrators, with each party appointing one arbitrator, and the two arbitrators so appointed appointing the third arbitrator who shall act as the presiding arbitrator of the Tribunal ("the Tribunal"). The arbitration shall be conducted under the Rules shall be the London Court of International Arbitration. The language of the arbitration shall be English. The seat of arbitration shall be London, England, and the proceedings shall be conducted as soon as is reasonably practicable, based upon the schedule established by the Tribunal. Any monetary award shall be paid in full to the prevailing party within the time specified in the Rules. The award shall be a final and binding decision of the Tribunal, and shall be enforceable in any court of competent jurisdiction. The prevailing party shall be entitled to the costs of arbitration, including the fees of the arbitrators, and the costs of the Tribunal. The Tribunal shall be entitled to award interest in the event of a breach or other violation of the Agreement to the date paid in full at a floating rate of interest equal to the prime rate of interest in effect at Citibank, N.A., New York, U.S.A., from time to time.

B. For Services, Equipment or Products provided, or to be provided, by BHI in the Americas: THIS AGREEMENT SHALL BE GOVERNED BY AND INTERPRETED IN ACCORDANCE WITH THE SUBSTANTIVE LAWS OF OKLAHOMA, EXCLUDING CONFLICTS OF LAW AND CHOICE OF LAW PRINCIPLES. ANY DISPUTE, CONTROVERSY OR CLAIM ("DISPUTE") ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT OR THE FURNISHING OF EQUIPMENT, SERVICES OR PRODUCTS HEREUNDER SHALL BE RESOLVED BY FINAL AND BINDING ARBITRATION CONDUCTED IN ACCORDANCE WITH THE UNCITRAL RULES OF ARBITRATION OF THE AMERICAN ARBITRATION ASSOCIATION ("THE RULES"). The Tribunal shall be composed of three arbitrators, with each party appointing one arbitrator, and the two arbitrators so appointed appointing the third arbitrator who shall act as Chair ("the Tribunal"). The seat of arbitration shall be Houston, Texas, and the proceedings shall be conducted as soon as reasonably practicable, based upon the schedule established by the Tribunal.

C. For any arbitration conducted in accordance with Paragraph A. or B. above, the following shall apply. No award shall be made for Consequential Damages. Judgment upon the award rendered by the Tribunal pursuant hereto may be entered in, and enforced by, any court of competent jurisdiction. All statutes of limitation that would otherwise be applicable shall apply to the arbitration proceeding. Any attorney-client privilege and other protection against disclosure of confidential information shall survive the arbitration proceeding. The arbitrators shall be bound by the provisions of any applicable law, rules, regulations and decrees of any governmental or regulatory body having jurisdiction over the Services, Equipment or Products to be provided by BHI or the work site or that may otherwise be applicable to BHI's or Customer's performance under this Agreement. Subject to each party's right to cooperate fully with the United States authorities, the parties understand and agree that this confidentiality obligation extends to information concerning the fact of any request for arbitration, any ongoing arbitration, as well as all matters discussed, discovered, or divulged, (whether voluntarily or by compulsion) during the course of such arbitration proceeding. It is the desire of the parties that any Dispute is resolved efficiently and fairly and the Tribunal shall act in a manner consistent with these intentions.

#### 21. ASSIGNMENT

BHI shall have the right to assign this Agreement to any of its subsidiaries, affiliated or related companies without the consent of Customer.

#### 22. GENERAL

Failure of Customer or BHI to enforce any of the terms and conditions of this Agreement shall not prevent a subsequent enforcement of such terms and conditions or be deemed a waiver of any subsequent breach. Should any provision of this Agreement, or a portion thereof, be unenforceable or in conflict with governing country, state, province, or local laws, then the validity of the remaining provisions, and portions thereof, shall not be affected by such unenforceability or conflict, and the Agreement shall be construed as if such provisions, or portion thereof, were not contained herein. This Agreement contains all representations of the parties and supersedes all prior oral or written agreements or representations. Customer acknowledges that it has not relied on any representations other than those contained in this Agreement. This Agreement shall not be varied, supplemented, qualified, or interpreted by any prior or subsequent oral or written communications of any kind, including but not limited to, correspondence, negotiations, or by both parties. In the event of any conflict between the terms of this Agreement and any other terms and conditions set forth in Customer's purchase orders, field work orders, work tickets, invoices, statements, or any other type of memoranda or other documents used by Customer in the normal course of business, whether oral or written, the provisions of this Agreement shall govern.

Operator: DEVON ENERGY PRODUCTION COMPANY LP  
Well Name: Gadwall 2 State 1H  
Date: June 9, 2015



Proposal No: 991950105A

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## **PRODUCT DESCRIPTIONS**

### **ASA-301**

Additive used to reduce or eliminate free water and settling in cement slurries.

### **BA-10A**

Improves cement bonding and acts as a matrix flow control agent. BA-10A is effective in a wide variety of slurries.

### **Bentonite**

Commonly called gel, it is a clay material used as a cement extender and to control excessive free water.

### **CD-32**

A patented, free-flowing, water soluble polymer that is an efficient and effective dispersant for primary and remedial cementing.

### **Calcium Chloride**

A powdered, flaked or pelletized material used to decrease thickening time and increase the rate of strength development.

### **Cello Flake**

Graded (3/8 to 3/4 inch) cellophane flakes used as a lost circulation material.

### **FL-25**

An all purpose salt-tolerant fluid loss additive that provides exceptional fluid loss control across a wide range of temperatures and salinity conditions and remedial cementing applications.

### **FL-52**

A water soluble, high molecular weight fluid loss additive used in medium to low density slurries. It is functional from low to high temperature ranges.

### **FP-6L**

A clear liquid that decreases foaming in slurries during mixing.

### **LCM-1**

A graded (8 to 60 mesh) naturally occurring hydrocarbon, asphaltite. It is used as a lost circulation material at low to moderate temperatures and will act as a slurry extender. Cement compressive strength is reduced.

### **MPA-5**

Used to enhance compressive, tensile, flexural strength development and reduced permeability

### **Poz (Fly Ash)**

A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.

### **Premium Plus C Cement**

P044

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**PRODUCT DESCRIPTIONS (Continued)**

**Premium Plus H Cement**

Class H cement is an API type, all purpose oil well cement which is used without modification in wells up to 8,000 ft. It possesses a moderate sulfate resistance. With the use of accelerators or retarders, it can be used in a wide range of well depths and temperatures.

**R-21**

A low to medium temperature retarder used to control thickening time of cement slurries.

**R-3**

A low temperature retarder used in a wide range of slurry formulations to extend the slurry thickening time.

**SealBond Plus**

SealBondTM spacer systems combines the unique quality of a cement spacer system with the added advantage of curing lost circulation and wellbore strengthening properties. The viscosity as well as lost circulation and strengthening properties can be adjusted using the SealBond 25, 50 and 100. In severe lost circulation cases

**Sodium Chloride**

At low concentrations, it is used as an accelerator for cement slurries. At high concentrations, it is used for formation compatibility.

**Sodium Metasilicate**

An accelerator used to decrease the thickening time of cement slurries.

**Sodium Metasilicate**

An extender used to produce an economical, low density cement slurry.

**Sodium Metasilicate**

An extender used to produce an economical, low density cement slurry.

**Static Free**

An anti-static additive used to prevent air entrainment due to agglomerated particles. Can be used in Cementing and Fracturing operations to aid in the flow of dry materials.

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP  
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**End of Report**