

Operator:	Felix Energy LLC	Date:	1/27/2015	
Well Name:	Columbine 15-4AH	Field:		
Proposed TD:	15815' MD/10520' TVD	County, State:	Blaine, OK	
Location:	5 - 15N - 10W	Objective:	Miss	
Purpose:	Drill, complete & equip horizontal well	AFE No.;		_
			Miss	_

tangib	les	Drilling (830)	Completion (840)	Facility (840)	Total
010	Permits, Licenses, Etc	6,000			6
020	Staking & Surveying	8,000			8
025	Road, Locations	70,000	20,000	5,000	95
030	Damages	50,000			50
035	Mobilization/Demobilization	197,000			197
040	Daywork Contract 23 days @ \$17000		-		396
045	Footage Contract	, 535,,,,			
		15,050			15
050	Mouse/Rathole/Conduct Pipe				
055	Directional Drilling & Surveying	249,000			249
060	Bits, Tools, Stabilizers	70,260	27,000		97
065	Fuel, Power	107,188	8,750		115
070	Drill Water	8,700	-		. 8
075	Mud & Chemicals	230,000			230
080	Mud Logging	25,200			25
		1			
085	Drill Stem Testing				
090	Core Analysis	·			
095	Openhole Logging	.i - L			
100	Cement Services/Float Equip	145,000			145
105	Transportation, Trucking	26,600	35,000		61
110	Casing Crew & Equipment	52,913			52
115	Welding Services	15,000	5,000	10,000	30
120	Contract Labor	25,000	15,000		40
			188,000	5,000	312
125	Rental Equipment	119,675		3,000	72
130	Completion Rig	<u> </u>	72,000		- /4
135	Coiled Tubing		٠ ــــ		-
140	Cased Hole Logs & Surveys		6,500		E
145	Perforating/Wireline Services		245,000		245
150	Miscellaneous	75,000	100,000		175
155	Acidizing/Fracturing 20 stg plug & perf - Slickwate		2,206,150		2,206
	Well Testing		50,000		50
160		 	15,000		15
165	Completion Fluids	L			260
170	Other Services	197,050	63,500		
175	Supervision	133,400	89,100	-)	222
180	Overhead	11,426	6,000	-	17
185	Well Control Insurance	15,815			15
190	Legal, Title Services	3,000			_ 3
195	P&A Costs				
200	Contingency	67,592	78,800		146
200			3,230,800	20,000	5,571
	Subtotal - Intangible		Completion	Facility	3,372
ngible	es	Drilling (850)	(860)	(860)	Total
		(020)	(800)		
	1	1 1			
010	Conductor Casing				
	Surface Casing 1950' 9.625 40# K-55 STC				48
010		the second second second second			48 275
010 015	Surface Casing 1950' 9.625 40# K-55 STC	the second second second second			
010 015 120 125	Surface Casing 1950' 9.625 40# K-55 5TG Intermediate Casing 9032' 7 32# P-110 BTG Drilling Uner 9032' 7 32# P-110 BTG	the second second second second			
010 015 120 125 130	Surface Casing 1950' 9.625 40# K-55 STG Intermediate Casing 9032' 7 32# P-110 BTG Drilling Uner Production Casing	275,460			275
010 015 120 125 130	Surface Casing 1950' 9.625 40# K-55 STG Intermediate Casing 9032' 7 32# P-110 BTG Drilling Uner Production Casing Production Liner 6833' 4.5 13.5# P-110 BTG	275,460 88,829	47.464		275
010 015 120 125 130 135	Surface Casing 1950' 9.625 40# K-55 576 Intermediate Casing 9032' 7 32# P-110 BTG Orilling Uner Production Casing Production Liner 6833' 4.5 13.5# P-110 BTG Production Tubing 8552' 2.875in Prod Tubing	275,460 	47,464		275 88 47
010 015 120 125 130 135 140	Surface Casing 1950' 9.625 40# K-55 5TC Intermediate Casing 9032' 7 32# P-110 BTC Drilling Uner Production Casing Production Liner 6833' 4.5 13.5# P-110 BTC Production Tubing 8552' 2.875in Prod Tubing Wellhead Equipment	275,460 88,829	47,464 15,000		275
010 015 120 125 130 135 140 145	Surface Casing 1950' 9.625 40# K-55 570 Intermediate Casing 9032' 7 32# P-110 BT0 Drilling Uner Production Casing Production Liner 6833' 4.5 13.5# P-110 BT0 Production Tubing 8552' 2.875in Prod Tubing Wellhead Equipment Float Equip/Liner Hanger	275,460 			275 88 47 37
010 015 120 125 130 135 140	Surface Casing 1950' 9.625 40# K-55 5TC Intermediate Casing 9032' 7 32# P-110 BTC Drilling Uner Production Casing Production Liner 6833' 4.5 13.5# P-110 BTC Production Tubing 8552' 2.875in Prod Tubing Wellhead Equipment	275,460 	15,000	45,000	275 88 47 37
010 015 120 125 130 135 140 145	Surface Casing 1950' 9.625 40# K-55 570 Intermediate Casing 9032' 7 32# P-110 BT0 Drilling Uner Production Casing Production Liner 6833' 4.5 13.5# P-110 BT0 Production Tubing 8552' 2.875in Prod Tubing Wellhead Equipment Float Equip/Liner Hanger	275,460 			279 88 41 31
010 015 120 125 130 135 140 145 150 155	Surface Casing 1950' 9.625 40# K-55 5TC Intermediate Casing 9032' 7 32# P-110 BTC Drilling Uner Production Casing Production Liner 6833' 4.5 13.5# P-110 BTC Production Tubing 8552' 2.875in Prod Tubing Wellhead Equipment Float Equip/Liner Hanger Nipple/ Valve/ Fitting/Flowline Subsurface Equipment	275,460 	15,000	45,000 156,300	275 88 47 37
010 015 120 125 130 135 140 145 150 155 160	Surface Casing 1950' 9.625 40# K-55 STG Intermediate Casing 9032' 7 32# P-110 BTG Drilling Uner Production Casing Production Liner 6833' 4.5 13.5# P-110 BTG Production Tubing 8552' 2.875in Prod Tubing Wellhead Equipment Float Equip/Liner Hanger Nipple/ Valve/ Fitting/Flowline Subsurface Equipment Surface Equipment	275,460 	15,000		275 88 47 37 49 15
010 015 120 125 130 135 140 145 150 155 160 165 170	Surface Casing 1950' 9.625 40# K-55 STG Intermediate Casing 9032' 7 32# P-110 BTG Drilling Uner Production Casing Production Liner 6833' 4.5 13.5# P-110 BTG Production Tubing 8552' 2.875in Prod Tubing Wellhead Equipment Float Equip/Liner Hanger Nipple/ Valve/ Fitting/Flowline Subsurface Equipment Surface Equipment Surface Equipment Surface Equipment Supervision	88,829 3 22,000	15,000	156,300 21,600	275 88 47 37 49 15
010 015 120 125 130 135 140 145 150 155 160 165 170	Surface Casing 1950' 9.625 40# K-55 STC Intermediate Casing 9032' 7 32# P-110 BTC Drilling Uner Production Casing Froduction Liner 6833' 4.5 13.5# P-110 BTC Production Tubing 8552' 2.875in Prod Tubing Wellhead Equipment Float Equip/Liner Hanger Nipple/ Valve/ Fitting/Flowline Subsurface Equipment Surface Equipment Surface Equipment Supervision Hauling	88,829 3 22,000	15,000	156,300	275 88 44 33 49 15 155 2
010 015 120 125 130 135 140 145 150 155 160 165 170 175	Surface Casing 1950' 9.625 40# K-55 STG Intermediate Casing 9032' 7 32# P-110 BTG Orilling Uner Production Casing Production Liner 6833' 4.5 13.5# P-110 BTG Production Tubing 8552' 2.875in Prod Tubing Wellhead Equipment Float Equip/Liner Hanger Nippie/ Valve/ Fitting/Flowline Subsurface Equipment Supervision Hauling Compressors	88,829 3 22,000	15,000	156,300 21,600	275 88 44 33 49 15 155 2
010 015 120 125 130 135 140 145 150 155 160 165 170 175 180	Surface Casing 1950' 9.625 40# K-55 STG Intermediate Casing 9032' 7 32# P-110 BTG Drilling Uner Production Casing Production Liner 6833' 4.5 13.5# P-110 BTG Production Tubing 8552' 2.875in Prod Tubing Wellhead Equipment Float Equip/Liner Hanger Nipple/ Valve/ Fitting/Flowline Subsurface Equipment Surface Equipment Surface Equipment Supervision Hauling Compressors Arthficial Lift (surface)	88,829 3 22,000	15,000	156,300 21,600	275 88 4' 3' 11 155 2
010 015 120 125 130 135 140 145 150 155 160 165 170 175	Surface Casing 1950' 9.625 40# K-55 STG Intermediate Casing 9032' 7 32# P-110 BTG Orilling Uner Production Casing Production Liner 6833' 4.5 13.5# P-110 BTG Production Tubing 8552' 2.875in Prod Tubing Wellhead Equipment Float Equip/Liner Hanger Nippie/ Valve/ Fitting/Flowline Subsurface Equipment Supervision Hauling Compressors	88,829 3 22,000	15,000	156,300 21,600	27! 88 44 31 41: 155 2
010 015 120 125 130 135 140 145 150 155 160 165 170 175 180	Surface Casing 1950' 9.625 40# K-55 STG Intermediate Casing 9032' 7 32# P-110 BTG Drilling Uner Production Casing Production Liner 6833' 4.5 13.5# P-110 BTG Production Tubing 8552' 2.875in Prod Tubing Wellhead Equipment Float Equip/Liner Hanger Nipple/ Valve/ Fitting/Flowline Subsurface Equipment Surface Equipment Surface Equipment Supervision Hauling Compressors Arthficial Lift (surface)	88,829 3 22,000	15,000	156,300 21,600 5,000	27! 88: 44: 3: 4: 1: 15: 2:
010 015 120 125 130 135 140 145 150 155 160 165 170 175 180 185	Surface Casing 1950' 9.625 40# K-55 STC Intermediate Casing 9032' 7 32# P-110 BTC Orilling Uner Production Casing Production Liner 6833' 4.5 13.5# P-110 BTC Production Tubing 8552' 2.875in Prod Tubing Wellhead Equipment Float Equip/Liner Hanger Nippie/ Valve/ Fitting/Flowline Subsurface Equipment Supervision Hauling Compressors Artificial Lift (surface) Artificial Lift (surface) Artificial Lift (downhole) Power	88,829 3 22,000	15,000	156,300 21,600 5,000	27: 88: 44: 31: 15: 2: 2: 1.
010 015 120 125 130 135 140 145 150 155 160 170 175 180 185 186	Surface Casing 1950' 9.625 40# K-55 STG Intermediate Casing 9032' 7 32# P-110 BTG DOI Illing Uner Production Casing Production Liner 6833' 4.5 13.5# P-110 BTG Wellhead Equipment Float Equip/Liner Hanger Nipple/ Valve/ Fitting/Flowline Subsurface Equipment Supervision Hauling Compressors Artificial Lift (surface) Artificial Lift (downhole) Power Flow Lines Houles H	88,829 3 22,000	15,000	156,300 21,600 5,000	27: 88: 44: 31: 15: 2: 2: 1.
010 015 120 125 130 135 140 145 150 155 160 165 170 175 180 185 186 190	Surface Casing 1950' 9.625 40# K-55 5TC Intermediate Casing 9032' 7 32# P-110 BTC Drilling Uner Production Casing Froduction Liner 6833' 4.5 13.5# P-110 BTC Production Tubing 8552' 2.875in Prod Tubing Wellhead Equipment Float Equip/Liner Hanger Nipple/ Valve/ Fitting/Flowline Subsurface Equipment Surface Equipment Surface Equipment Supervision Hauling Compressors Artificial Lift (surface) Artificial Lift (downhole) Power Flow Lines Pipeline & Metering Compression Artificial Lift (downhole) Power Flow Lines Pipeline & Metering	88,829 3 22,000	15,000	156,300 21,600 5,000	27: 88: 44: 31: 15: 2: 2: 1:
010 015 120 125 130 135 140 145 150 155 160 175 170 175 180 185 186 190 195 200	Surface Casing 1950' 9.625 40# K-55 STC Intermediate Casing 9032' 7 32# P-110 BTC Orlling Uner Production Casing Production Liner 6833' 4.5 13.5# P-110 BTC Production Tubing 8552' 2.875in Prod Tubing Wellhead Equipment Float Equip/Liner Hanger Nippie/ Valve/ Fitting/Flowline Subsurface Equipment Surface Equipment Surface Equipment Supervision Hauling Compressors Artificial Lift (surface) Artificial Lift (downhole) Power Flow Lines Pipeline & Metering Misc & TCC Contingency	88,829 3 22,000	15,000 15,000 20,000	156,300 21,600 5,000 15,000	279 88 44 33 4. 12: 155 2.
010 015 120 125 130 135 140 145 150 155 160 165 170 175 180 185 186 190	Surface Casing 1950' 9.625 40# K-55 5TC Intermediate Casing 9032' 7 32# P-110 BTC Drilling Uner Production Casing Froduction Liner 6833' 4.5 13.5# P-110 BTC Production Tubing 8552' 2.875in Prod Tubing Wellhead Equipment Float Equip/Liner Hanger Nipple/ Valve/ Fitting/Flowline Subsurface Equipment Surface Equipment Surface Equipment Supervision Hauling Compressors Artificial Lift (surface) Artificial Lift (downhole) Power Flow Lines Pipeline & Metering Compression Artificial Lift (downhole) Power Flow Lines Pipeline & Metering	275,460 88,829 3 22,000	15,000 15,000 20,000	156,300 21,600 5,000	275 88 44 33 49 15 155 2

Felix Energy LLC Approval	
Approved by: 12 16-15	Mg 7/20/15
Working Interest Owner Approval	/ / / / / /
Approved by:	
Date:	
THIS AFE IS ONLY AN ESTIMATE. BY RETURNING ONE SIGNED COPY, PARTY AGREES	TO PAY ITS WORKING INTEREST SHARE OF ACTUAL COSTS INCURRED.



JUL 28 2015