MARKWEST RESOURCES, INC. FULLERTON FEDERAL #2J PC (#5) B Sec. 15 – T27N – R11W, San Juan County, N.M. Surface Loc. 660' FNL & 1980 FEL

PC CLEANOUT Pertinent Data Sheet

<u>Field:</u> West Kutz PC <u>Elevation</u>: 6325' GL <u>TD:</u> 6794' **Spud Date**: 12/22/58 KB=11' <u>PBTD</u>: 2250'

DK Completion Date: 1/22/59 **PC Recompletion Date:** 1/4/88

CASING PROGRAM:

Hole Size	Csg Size	Wt. & Grade	Depth Set	<u>Cement</u>	<u>TOC</u>
13-3/4"	9-5/8"	25.4#	300'	290 sx	Circ. to Surface
8-3/4"	5-1/2"	14&15.5# J-55	6791'	550 sx	1738' – CBL

Tubing Record:

2-3/8" 4.7# J-55 2111' (SN & notched collar on bottom)

Formation Tops:

Ojo Alamo	992'	Cliffhouse	4037'
Kirtland	1085'	Point Lookout	4517'
Fruitland	1720'	Gallup	5630'
Pictured Cliffs	2070'	Dakota	6580'

Logging Record: Induction, GRN, & Microlog – 1959, CBL - 12/21/87

Stimulation: Perf DK w/1 spf @ 6627'-40' & frac w/40,000# sand in oil.

Workover History: 2/24/75: Located csg leak between 3910'-4156'. Sq w/40 sx cmt, drilled out & tested to 800#. 5/2/84: Set CIBP @ 6580' & cap w/4 cf cmt & tested csg to 500#. Completed TA. 1/4/88: Plug back to 2250'. Ran CBL – TOC @ 1738'. Perfed PC @ 2060'-2138' w/2 spf. Acidized w/1500 gal 15% acid & fraced w/42,000# 12/20 sand in 70Q foam. PC ISICP = 226 PSI @ 1922'. 7/26/94: Tag fill @ 2152'. Lower tbg to 2111' & swab well in.

Production History: DK cum = 1258 MMCF & 9193 BO. PC cum = 448 MMCF. Production recently has risen from 50 MCF/D to 100 MCF/D due to the use of liquid soap. Production suddenly dropped from 300 MCF/D to 130 MCF/D in 1994 (just before the w/o).

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GENERAL

- * Prior to rig-up and commencement of operations, review the attached general wellsite stipulations.
- * All information concerning the workover operations of this well shall remain **confidential** and shall not be released without the written consent of MarkWest Resources.
- 1. MOL & RU, test anchors, set pump, 1 frac tank & air equipment. All water to be 2% KCL or filtered produced PC or FRTC water.
- 2. Kill well w/ water or set blanking plug in 2-3/8" SN @ 2110'
- 3. ND WH, NU BOP. TIH to tag bottom & strapOH w/2-3/8" tbg.
- 4. If necessary, TIH w/4-3/4" bit & CO to 2200' w/air/mist. TOH.
- 5. Rabbit in hole w/2-3/8" tbg & land @ 2135' w/SN one jt above open ended bottom. Replace all bad tbg its.
- 6. ND BOP, NU WH. Unload & blow well as needed & place on line.

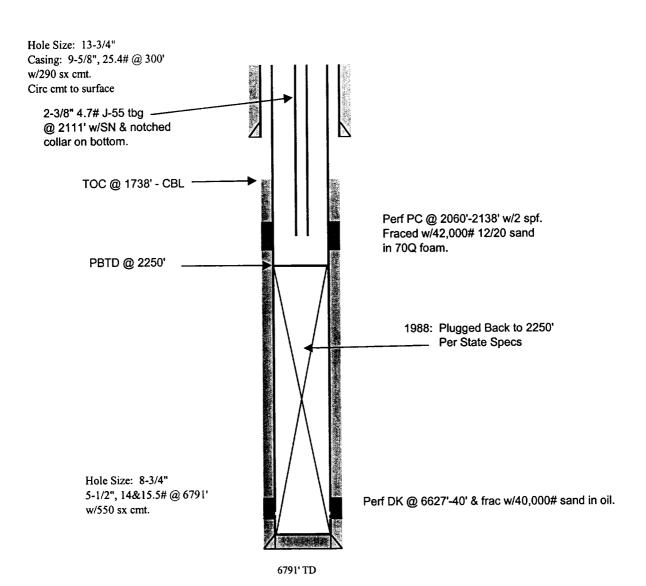
EQUIPMENT & VENDORS LIST

ITEM:	VENDOR	PHONE #
RIG:	KEY ENERGY SERVICES	970-563-9053 505-327-0416
RIG SUPERVISOR:	MIKE CONFER	505-599-7461 505-330-2022
ENGR. CONSULTANT 4573	MIKE PIPPIN	505-327-
4070		505-330-0495
DOWNHOLE TOOLS:	BAKER	505-325-0216
TRUCKING:	SUNCO	505-327-0416
FRAC TANKS:	RED TOP	
WELLHEAD	CAMERON	505-327-3402

WELLBORE DIAGRAM PC CLEANOUT

FULLERTON FEDERAL #2J PC (#5)

660' FNL & 1980' FEL (B) Sec. 15 T-27N, R11W
West Kutz Pictured Cliffs
San Juan County, New Mexico
PMP 5/14/01



MARKWEST RESOURCES, INC. 155 INVERNESS DRIVE WEST, SUITE 200 ENGLEWOOD, COLORADO 80112

PROSPECT: ANGEL PEAK
WELL NAME: FULLERTON FEDERAL #2J PC (#5)
WELL #: 2J

COUNTY :San Juan PROPOSED DEPTH: 2250' FT STATE : New Mexico OBJECTIVE : PICTURED CLIFFS

LOCATION: B Sec.15 T27N R11W DATE: 5/15/01

OPERATOR : MarkWest COMMENCEMENT DATE : 6/16/01

OVERALL PLAN: CLEAN OUT PC & REPAIR TBG

STEPS

1 CHECK FOR FILL & PULL TBG

2 CLEAN OUT PC TO 2200'

3 RABBIT TBG IN HOLE & REPLACE ALL BAD JTS

4 RETURN WELL TO PRODUCTION

CURRENT PC PRODUCTION (FROM CSG)

ESTIMATED PC UPLIFT:

90 MCF/D 150 MCF/D INCREMENTAL ECONOMICS

RATE OF RETURN PAYOUT

P/I (\$/\$N @10%)

SUMMARY OF ESTIMATED COSTS

104 ACIDIZ 106 CASINI 108 CEMER 109 PIPE IR 201 WATEE 202 WORK 203 PERFC 203 CASEE 204 FUEL 8 205 FRAC 1 206 FRAC 2 207 EQUIP 209 FLOW 210 TRANS 211 COMP, 217 ROUS? 328 CONTI 1910 TANG 102 TUBIN 103 TUBIN 104 TANG 105 WELL 106 DOWN 210 TREAT 211 TANK 211 METEI	PR (WELDING, ETC.) IZING NG CREW ENT INSPECTION ER DISPOSAL KOVER RIG (4 Days \$3,000/day) FORATIONS ED HOLE LOGS & WATER VATER VATER VESTING ISPORTATION ISPORTATION PRESSION STABOUT LABOR	\$1,000 \$500 \$12,000 \$500 \$500
103 LABOR 104 ACIDIZ 106 CASINI 108 CEMEN 109 PIPE IN 201 WATES 201 WATES 202 WORK 203 PERFC 204 FUEL 8 205 FRAC 1 206 FRAC 1 207 EQUIP 209 FLOW 210 TRANS 212 COMP 217 ROUS 218 MISC. 220 BATTE 328 CONTI 102 TUBIN 103 TUBIN 104 TUBIN 105 TUBIN 106 TUBIN 107 TUBIN 108 TUBIN 109 TUBIN 100 TREAT 11 TANK 11 TUBIN	PR (WELDING, ETC.) IZING NG CREW ENT INSPECTION ER DISPOSAL KOVER RIG (4 Days \$3,000/day) FORATIONS ED HOLE LOGS & WATER VATER VATER VESTING ISPORTATION ISPORTATION PRESSION STABOUT LABOR	\$500 \$12,000 \$500 \$500 \$500
104 ACIDIZ	IZING NG CREW STATE STAT	\$12,000 \$500 \$50 \$50
106	NG CREW ENT INSPECTION ER DISPOSAL KOVER RIG (4 Days \$3,000/day) OORATIONS ED HOLE LOGS & WATER C WATER C WATER C Y TESTING USPORTATION PANY SUPERVISION PRESSION STABOUT LABOR	\$12,00 \$50 \$50 \$50
108 CEMEN 109 PIPE II 109 PIPE II 101 WATEI 102 WORK 103 PERFO 103 PERFO 103 PERFO 103 PERFO 104 PERFO 105 PERFO 105 PERFO 106 PERFO 107 PERFO 108 PERFO 109 PERFO 109 PERFO 100 PER	INT INSPECTION ER DISPOSAL KOVER RIG (4 Days \$3,000/day) ORATIONS D HOLE LOGS & WATER WATER WATER VICTOR TOOL RENTAL VIESTING ISPORTATION PANY SUPERVISION PRESSION STABOUT LABOR	\$12,00 \$50 \$50 \$50
109 PIPE IP 109 PIPE IP 101 WATER 102 WATER 102 PIPE IP 102 PIPE IP 103 PIPE IP 104 PIPE IP 104 PIPE IP IP IP IP IP IP	INSPECTION ER DISPOSAL KOVER RIG (4 Days \$3,000/day) ORATIONS DI HOLE LOGS & WATER VWATER PMENT & TOOL RENTAL V TESTING ISPORTATION PANY SUPERVISION PRESSION STABOUT LABOR	\$12,00 \$50 \$50 \$50
201 WATER 202 WORK 203 PERFC 203 PERFC 203 CASEC 204 FUEL & 205 FRAC 206 FRAC 207 EQUIP 209 FLOW 210 TRANS 212 COMP 217 ROUS 218 MISC. 220 BATTE 328 CONTI 1010 TANG 102 TUBIN 103 TUBIN 104 TUBIN 105 TUBIN 105 TUBIN 106 TANG 211 TANK	ER DISPOSAL KOVER RIG (4 Days \$3,000/day) **ORATIONS **ED HOLE LOGS **ED H	\$12,00 \$50 \$50 \$50
202 WORK 203 PERFC 203 CASE 204 FUEL 205 FRAC 206 FRAC 207 EQUIP 209 FLOW 210 TRANS 211 COMP 211 ROUS 212 COMP 211 TANG 328 CONTI 328 CONTI 329 TUBIN 320 TUBIN 320 TUBIN 321 TUBIN 321 TUBIN 3220 BATTE 328 CONTI 329 TUBIN 320 TUBIN 321 TUBIN 321 TUBIN 321 TUBIN 322 TUBIN 323 TUBIN 324 TUBIN 325 TUBIN 326 TUBIN 327 TUBIN 327 TUBIN 328 TUBIN 329 TUBIN 320 TUBIN 321 TUBIN 321 TUBIN 3221 TUBIN 323 TUBIN 324 TUBIN 325 TUBIN 325 TUBIN 326 TUBIN 327 TUBIN 32	KOVER RIG (4 Days \$3,000/day) ORATIONS ED HOLE LOGS & WATER C WATER C WATER V TESTING ISPORTATION PANY SUPERVISION PRESSION STABOUT LABOR	\$12,00 \$50 \$50 \$50
203 PERFC 203 PERFC 204 FUEL 8 205 FRAC 1 206 FRAC 1 207 EQUIP 209 FLOW 210 TRANS 212 COMP 217 ROUS 218 MISC. 218 MISC. 328 CONTI 328 CONTI 328 CONTI 329 TUBIN 102 TUBIN 102 TUBIN 102 WELLI 102 WELLI 210 TRANS 2210 TRANS 2210 TRANS 2211 TANK 2212 METEI 2213 SURF/	FORATIONS DED HOLE LOGS & WATER WATER WATER PMENT & TOOL RENTAL VIESTING USPORTATION PANY SUPERVISION PRESSION STABOUT LABOR	\$50 \$50 \$50
203 CASEC 204 FUEL & 205 FRAC 206 FRAC 207 EQUIP 209 FLOW 210 TRANS 212 COMP 217 ROUS 218 MISC. 220 BATC 328 CONTI 1010 TANG 102 TUBIN 102 TUBIN 102 TUBIN 102 WELL 208 DOWN 210 TRANS 211 TANK 212 WELL 211 TANK 213 WELL 211 TANK 214 WELL 215 WELL 216 WELL 217 TANK 218 WELL 219 TANK 210 TANG 210 TRANS 211 TANK 211 TANK 212 WELL 213 SURF/	ED HOLE LOGS & WATER CWATER CWATER CPMENT & TOOL RENTAL V TESTING ISPORTATION PANY SUPERVISION PRESSION STABOUT LABOR	\$50 \$50
204 FUEL 8 205 FRAC1 206 FRAC2 207 EQUIP 209 FLOW 210 TRANS 211 COMP 2117 ROUS 218 MISC. 220 BATTE 328 CONTI 102 TUBIN 102 TUBIN 102 TUBIN 102 WELLI 200 DOWN 210 TRANS 211 TANK 211 TANK 212 TUBIN 211 TANK 211 TANK 212 WELLI 213 SURF/	& WATER C WATER PMENT & TOOL RENTAL V TESTING ISPORTATION PANY SUPERVISION PRESSION STABOUT LABOR	\$50 \$50
205 FRAC 1 206 FRAC 2 207 EQUIP 209 FLOW 210 TRANS 212 COMP 217 ROUS 218 MISC. 220 BATTE 328 CONTI 101 TANG 102 TUBIN 102 TUBIN 102 TUBIN 102 WELL 1150 WELL 1150 DOWN 210 TRANS 211 TANK	CWATER PMENT & TOOL RENTAL V TESTING ISPORTATION PANY SUPERVISION PRESSION STABOUT LABOR	\$50 \$50
206 FRAC 207 EQUIP 209 FLOW 210 TRANS 212 COMP 217 ROUS 218 MISC 220 BATT 2220 BATT 2221 TANK 2222 BATT 2223 WELLU 223 SURF/2	C PMENT & TOOL RENTAL PY TESTING SEPORTATION PANY SUPERVISION PRESSION PRES	\$50
207 EQUIP 209 FLOW 211 COMP 212 COMP 217 ROUS 218 MISC. 220 BATTE 328 CONTI SUBTC 102 TUBIN 102 TUBIN 102 TUBIN 102 WELLI 200 DOWN 210 TANG 211 TANG 211 TANG 211 TANG 211 TANG 211 TANG 212 METEI 213 SURF/	PMENT & TOOL RENTAL V TESTING USPORTATION PANY SUPERVISION PRESSION STABOUT LABOR	\$50
209 FLOW 210 TRANS 212 COMP 217 ROUS 218 MISC. 220 BATTE 328 CONTI 1910 TANG 102 TUBIN 102 TUBIN 102 WELL 1152 WELL 208 DOWN 210 TRANS 211 TANK 211 TANK 211 TANK 211 TANK 2121 TANK 2121 TANK 2121 TANK 2121 TANK 2121 TANK	V TESTING ISPORTATION PANY SUPERVISION PRESSION STABOUT LABOR	\$50
210 TRANS 212 COMP/ COMP/ 217 ROUS 218 MISC. 220 BATTL 220 EXTL 328 CONTI 1910 TANGI 102 TUBIN 102 TUBIN 102 WELLU 208 DOWN 210 TREAT 211 TANK 211 TANK 212 METEI 213 SURF/	ISPORTATION PANY SUPERVISION PRESSION STABOUT LABOR	
212 COMP/ COMP/ 2017 ROUS: 218 MISC. 220 BATTE 328 CONTI 500 TANGI 102 TUBIN 102 TUBIN 102 TUBIN 102 WELLI 200 DOWN 210 TREAT 211 TANK	PANY SUPERVISION PRESSION STABOUT LABOR	
217 COMPI 218 MISC. 220 BATTE 328 CONTI 500 TANG 102 TUBIN 102 TUBIN 102 TUBIN 102 WELLJ 208 DOWN 210 TREAT 211 TANK 211 TANK	PRESSION STABOUT LABOR	\$2,00
217 ROUST 218 MISC. 220 BATTE 328 CONTI 328 CONTI 1910 TANGI 102 TUBIN 102 TUBIN 102 WELLU 208 DOWN 210 TREAT 211 TANK 211 TANK 212 METEI 213 SURF/	STABOUT LABOR	\$4,00
218 MISC. 220 BATTE 328 CONTI SUBTC 1910 TANGI 102 TUBIN 102 TUBIN 1152 WELLI 206 DOWN 210 TREAT 211 TANK 211 TANK 2121 METEI 213 SURF/		\$50
220 BATTE 328 CONTI SUBTC 1910 TANGI 102 TUBIN 102 TUBIN 102 WELLI 200 DOWN 210 TREAT 211 TANK 212 METEI 213 SURF/	. (bits, float,strippers)	\$50
328 CONTI SUBTO 1910 TANGI 102 TUBIN 152 WELLJ 208 DOWN 152 WELLJ 208 DOWN 178 AT 171 TANK 211 TANK 212 METEI 213 SURFA	ERY CONSTRUCTION	
SUBTO 1910 TANGI 102 TUBIN 102 TUBIN 102 WELL) 208 DOWN 210 TREAT 211 TANK 212 METEI 213 SURF	TINGENCIES (20%)	\$4,40
1910 TANGI 102 TUBIN 102 TUBIN 152 WELLI 206 DOWN 210 TREAT 211 TANK 212 METEI 213 SURFA	HINGENCIES (20%)	
1910 TANGI 102 TUBIN 102 TUBIN 152 WELLI 206 DOWN 210 TREAT 211 TANK 212 METEI 213 SURFA	TOTAL INTANGIBLE WORKOVER	\$26.40
102 TUBIN 102 TUBIN 152 WELL 208 DOWN 210 TREAT 211 TANK 212 METEI 213 SURF	OTRE INTRINSIBLE WORKOVER	
102 TUBIN 152 WELL 208 DOWN 210 TREAT 211 TANK 212 METEI 213 SURF	GIBLE WORKOVER COSTS	
102 TUBIN 152 WELL 208 DOWN 210 TREAT 211 TANK 212 METEI 213 SURF		
152 WELL) 208 DOWN 210 TREAT 211 TANK 212 METEI 213 SURF	NG 200' OF 2-3/8" 4.7# J-55 EU @\$2.10/FT	\$42
208 DOWN 210 TREAT 211 TANK 212 METER 213 SURF	NG 200' FO 3-1/2" 9.2# J-55 NUE @ \$3.85/FT	
210 TREAT 211 TANK 212 METER 213 SURFA	LHEAD & VALVES	
211 TANK 212 METEI 213 SURF	NHOLE VALVES & NIPPLES	
212 METE 213 SURF	ATER/SEPARATOR	
213 SURF/	(BATTERY	
214 IBUILD	FACE FITTINGS & FLOW LINE	
	CES-CATTLE GUARD	
	ER (80 HP Wellhead Compressor)	
217 ANCH		
	TINGENCIES (15%)	
SOBIC		340
TOTAL WORK	TOTAL TANGIBLE WORKOVER	\$26,88
TOTAL AFE	TOTAL TANGIBLE WORKOVER RKOVER COSTS	\$26,883

APPROVALS:	
MARKWEST RESOURCES, INC.	TITLE
MARKWEST RESOURCES, INC.	TITLE
MARKWEST HYDROCARBON, INC.	TITLE