

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL						1. WELL NAME and NUMBER Flying Dutchman 6-20C4								
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT ALTAMONT								
4. TYPE OF WELL Oil Well Coalbed Methane Well: NO						5. UNIT or COMMUNITIZATION AGREEMENT NAME								
6. NAME OF OPERATOR EP ENERGY E&P COMPANY, L.P.						7. OPERATOR PHONE 713 997-5038								
8. ADDRESS OF OPERATOR 1001 Louisiana, Houston, TX, 77002						9. OPERATOR E-MAIL maria.gomez@epenergy.com								
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) Fee			11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>								
13. NAME OF SURFACE OWNER (if box 12 = 'fee') Tina Nielsen						14. SURFACE OWNER PHONE (if box 12 = 'fee')								
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee') 6515 Charlie Chan Drive, San Antonio, TX 78240						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')								
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			19. SLANT VERTICAL <input checked="" type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input type="checkbox"/>								
20. LOCATION OF WELL		FOOTAGES		QTR-QTR		SECTION		TOWNSHIP		RANGE		MERIDIAN		
LOCATION AT SURFACE		700 FNL 700 FWL		NWNW		20		3.0 S		4.0 W		U		
Top of Uppermost Producing Zone		700 FNL 700 FWL		NWNW		20		3.0 S		4.0 W		U		
At Total Depth		700 FNL 700 FWL		NWNW		20		3.0 S		4.0 W		U		
21. COUNTY DUCHESNE			22. DISTANCE TO NEAREST LEASE LINE (Feet) 700			23. NUMBER OF ACRES IN DRILLING UNIT 80								
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 1300			26. PROPOSED DEPTH MD: 12050 TVD: 12050								
27. ELEVATION - GROUND LEVEL 5869			28. BOND NUMBER 400JU0708			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Duchesne City								
Hole, Casing, and Cement Information														
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight				
Surf	12.25	9.625	0 - 2000	40.0	N-80 LT&C	0.0	Type V	386	2.23	12.0				
							Class G	194	1.3	14.3				
I1	8.75	7	0 - 8850	29.0	HCP-110 LT&C	10.2	Class G	487	1.91	12.5				
							Class G	304	1.64	13.0				
L1	6.125	5	8650 - 12050	18.0	HCP-110 LT&C	12.2	Class G	202	14.2	1.47				
ATTACHMENTS														
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES														
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER						<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN								
<input checked="" type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)						<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER								
<input type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)						<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP								
NAME Maria S. Gomez				TITLE Principal Regulatory Analyst				PHONE 713 997-5038						
SIGNATURE				DATE 10/07/2014				EMAIL maria.gomez@epenergy.com						
API NUMBER ASSIGNED 43013531670000				APPROVAL  Permit Manager										

**Flying Dutchman 6-20C4
Sec. 20, T3S, R4W
DUCHESNE COUNTY, UT**

EP ENERGY E&P COMPANY, L.P.

DRILLING PROGRAM

1. Estimated Tops of Important Geologic Markers

<u>Formation</u>	<u>Depth</u>
Green River (GRRV)	4,000' TVD
Green River (GRTN1)	4,700' TVD
Mahogany Bench	5,686' TVD
L. Green River	6,896' TVD
Wasatch	8,766' TVD
T.D. (Permit)	12,050' TVD

2. Estimated Depths of Anticipated Water, Oil, Gas or Mineral Formations:

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
	Green River (GRRV)	4,000' MD/TVD
	Green River (GRTN1)	4,700' MD/TVD
	Mahogany Bench	5,686' MD/TVD
Oil	L. Green River	6,896' MD/TVD
Oil	Wasatch	8,766' MD/TVD

3. Pressure Control Equipment: (Schematic Attached)

A Diverter Stack on structural pipe from 40' MD/TVD to 2,000' MD/TVD. A 10M BOP stack w/ rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams used from 2,000' MD/TVD to 8,850' MD/TVD. A 10M BOP stack w/ rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from 8,850' MD/TVD to TD (12,050' MD/TVD).

The BOPE and related equipment will meet the requirements of the 5M and 10M system.

OPERATORS MINIMUM SPECIFICATIONS FOR BOPE:

The surface casing will be equipped with a flanged casing head of 5M psi working pressure. An 11" 5M x 11" 10M spool, 11" x 10M psi BOP and 5M psi annular will be nipped up on the surface casing and tested to 250 psi low test / 3,000 psi high test for 10 minutes each prior to drilling out. The surface casing will be tested to 1,000 psi. for 30 mins. Intermediate casing will be tested to the greater of 1,500 psi or 0.22 psi/ft. The choke manifold equipment, upper Kelly

cock and floor safety valves will be tested to 5M psi. The annular preventer will be tested to 250 psi low test / 4,000 psi high test. The 10M BOP will be installed with rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from surface shoe to TD. The BOPE will be hydraulically operated.

In addition, the BOP equipment will be tested after running intermediate casing, after any repairs to the equipment and at least once every 30 days. Pipe and blind rams will be activated on each trip, annular preventer will be activated weekly and weekly BOP drills will be held with each crew.

Statement on Accumulator System and Location of Hydraulic Controls:

Precision # 404 is expected to be used to drill the proposed well. Operations will commence after approval of this application. Manual and/or hydraulic controls will be in compliance with 5M and 10M psi systems.

Auxiliary Equipment:

- A) Pason Gas Monitoring 2,000' - TD
- B) Mud logger with gas monitor – 2,000' to TD
- C) Choke manifold with one manual and one hydraulic operated choke
- D) Full opening floor valve with drill pipe thread
- E) Upper and lower Kelly cock
- F) Shaker, de-sander and centrifuge

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Wellbore Diagram.

All casing will meet or exceed the following design safety factors:

- Burst = 1.00
- Collapse = 1.125
- Tension = 1.2 (including 100k# overpull)

Cement design calculations for intermediate and production hole will be based on minimum 10% excess over gauge hole volumes. Actual volumes pumped will be a minimum of 10% excess over caliper volume to designed tops of cement for any section logged. A minimum of 50% excess over gauge volume will be pumped on surface casing.

5. **Drilling Fluids Program:**

Proposed Mud Program:

Interval	Type	Mud Weight
Surface	Air	Air
Intermediate	WBM	9.3 – 10.2
Production	WBM	11.0 – 12.2

Anticipated mud weights are based on actual offset well bottom-hole pressure data. Mud weights utilized may be somewhat higher to allow for trip margin and to provide hole stability for running logs and casing.

Visual mud monitoring equipment will be utilized.

6. **Evaluation Program:**

Logs:

Mud Log: 2,000' MD/TVD – TD

Open Hole Logs: Gamma Ray, Neutron-Density, Resistivity, Sonic, from surface casing shoe to TD.

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 12,050' TVD equals approximately 7,645 psi. This is calculated based on a 0.6344 psi/ft gradient (12.2 ppg mud density at TD).

Maximum anticipated surface pressure equals approximately 4,994 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/ft).

Maximum anticipated surface pressure based on frac gradient at 7" casing shoe is 0.8 psi/ft at 8,850' TVD = 7,080 psi

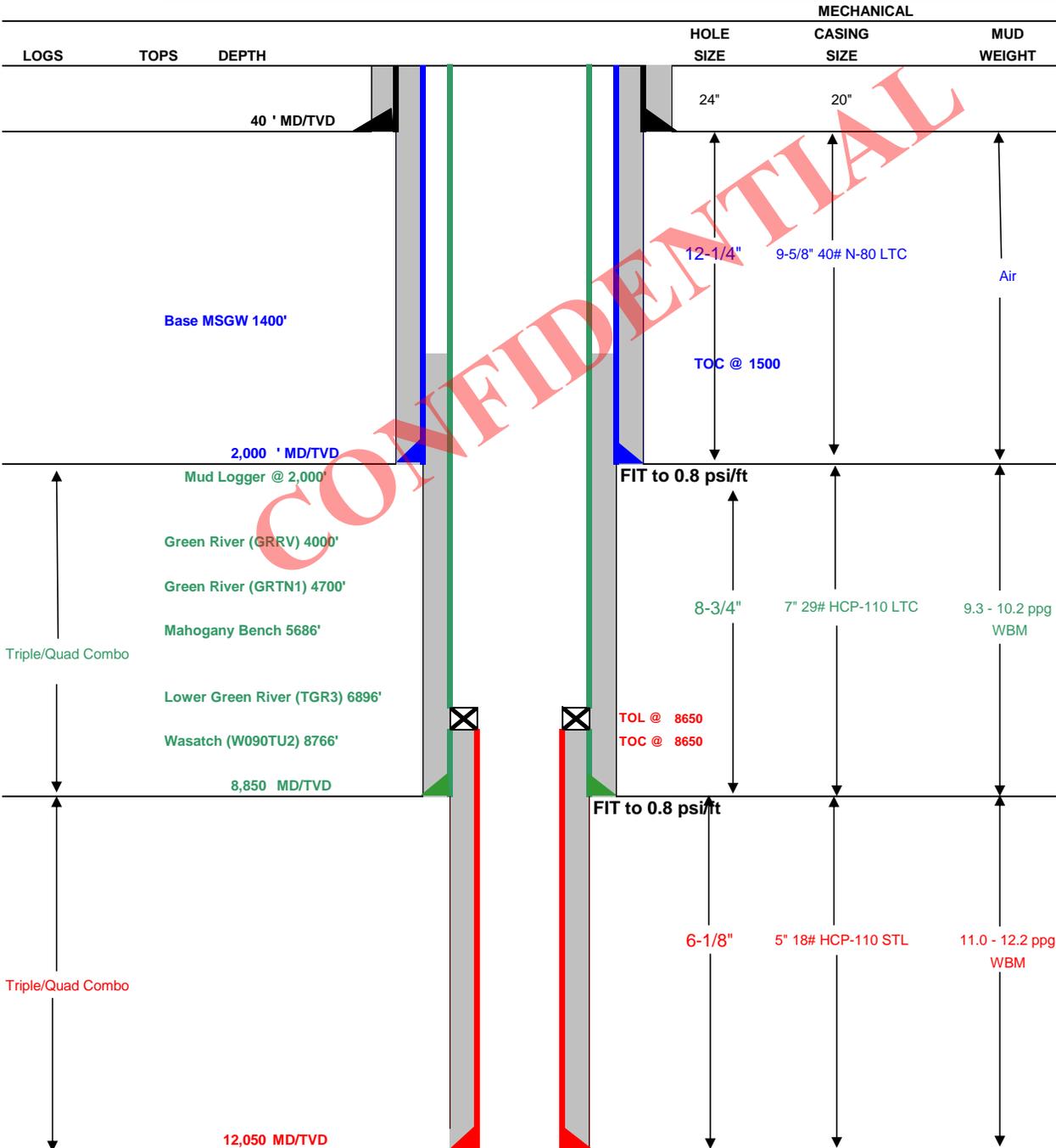
BOPE and casing design will be based on the lesser of the two MASPs which is 4,994 psi.

8. **OPERATOR REQUESTS THAT THE PROPOSED WELL BE PLACED ON CONFIDENTIAL STATUS.**



Drilling Schematic

Company Name: EP ENERGY	Date: September 30, 2014
Well Name: Flying Dutchman 6-20C4	TD: 12,050
Field, County, State: Altamont, Duchesne, Utah	AFE #: TBD
Surface Location: Sec 20 T3S R4W 700' FNL 700' FWL	BHL: Straight Hole
Objective Zone(s): Green River, Wasatch	Elevation: 5869
Rig: Precision 404	Spud (est.): TBD
BOPE Info: Diverter System on structural pipe from 40' to 2,000' . 11 10M BOPE w/ rotating head & 5M annular from 2,000' to 8,850' . 11 10M BOPE w/ rotating head, spacer spool, 5M annular, flex rams, blind rams, single w/ flex rams from 8,850' to TD	



DRILLING PROGRAM

CASING PROGRAM	SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
SURFACE	9-5/8"	0	2000	40.00	N-80	LTC	5,750	3,090	737
INTERMEDIATE	7"	0	8850	29.00	HCP-110	LTC	11,220	9,750	797
PRODUCTION LINER	5'	8650	12050	18.00	HCP-110	STL	13,940	15,450	495

CEMENT PROGRAM		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
CONDUCTOR		40	Class G + 3% CACL2	142	100%	15.8 ppg	1.15
SURFACE	Lead	1,500	EXTENDACEM SYSTEM: Type V Cement + 2% Cal-Seal 60 + 0.35% Versaset + 0.3% D-Air 5000 + 2% Econolite + 0.125 lb/sk Pol-E-Flake + 0.3% HR-5	386	75%	12.0 ppg	2.23
	Tail	500	HALCEM SYSTEM: Class G Cement + 3 lbm/sk Silicalite Compacted + 1% Salt + 0.3% Econolite + 0.25 lbm/sk Poly-E-Flake + 0.25 lbm/sk Kwik Seal + 0.3% D-AIR 5000	194	50%	14.3 ppg	1.30
INTERMEDIATE	Lead	4,850	EXPANDACEM SYSTEM: Class G Cement 6% Bentonite + 0.2% Econolite + 0.3% Versaset + 0.7% HR-5 + 0.3% Super CBL + 0.2% Halad(R)-322 + 0.125 lbm/sk Poly-E-Flake	487	30%	12.5 ppg	1.91
	Tail	2,500	EXPANDACEM SYSTEM: Class G Cement + 4% Bentonite + 0.25 Poly-E-Flake + 0.1% Halad-413 + 5 lb/sk Silicalite Compacted + 0.15% SA-1015 + 0.3% HR-5	304	30%	13.0 ppg	1.64
PRODUCTION LINER		3,400	EXTENDACEM SYSTEM: Class G Cement + 0.2% Super CBL + 0.55% SCR-100 + 0.3% Halad-413 + 0.125 lbm/sk Poly-E-Flake + 3 lbm/sk Silicalite Compacted + 20% SS-200 + 0.10% SA-1015	202	25%	14.20	1.47

FLOAT EQUIPMENT & CENTRALIZERS	
SURFACE	PDC drillable guide shoe, 1 joint casing, PDC drillable float collar. Thread lock all float equipment. Install bow spring centralizers on the bottom 3 joints of casing & every 3rd joint thereafter.
INTERMEDIATE	PDC drillable 10M,P-110 float shoe, 1 joint, PDC drillable 10M, P-110 float collar. Thread lock all float equipment. Maker joint at +/- 6,900'.
LINER	Float shoe, 1 joint, float collar, 1 joint, landing collar. Thread lock all FE. Maker joints every 1000'.

PROJECT ENGINEER(S): Brad MacAfee 713-997-6383

MANAGER: Bob Dodd



FLYING DUTCHMAN 6-20C4
WELL LOCATION: NW/NW SECTION 20, T.3S, R.4W. U.S.B.&M.
DUCHESNE COUNTY, UTAH

PROCEED IN NORTHERLY DIRECTION FROM DUCHESNE, UTAH ALONG HIGHWAY 87 APPROXIMATELY 3.5 MILES TO THE JUNCTION OF THIS ROAD AND 6000 S TO THE EAST; TURN RIGHT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 1.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ACCESS ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE JUNCTION OF THIS ROAD AND THE PROPOSED ACCESS ROAD TO THE WEST; TURN RIGHT AND FOLLOW ROAD FLAGS IN A WESTERLY DIRECTION APPROXIMATELY 412 FEET TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM BLUEBELL, UTAH TO THE PROPOSED LOCATION IS APPROXIMATELY 5.0 MILES.

CONFIDENTIAL



OUTLAW
ENGINEERING INC.

P.O. BOX 1800
ROOSEVELT, UTAH 84066
(435) 232-4321



FLYING DUTCHMAN 6-20C4

WELL LOCATION: NW/NW SECTION 20, T.3S, R.4W, U.S.B.&M.
DUCHESNE COUNTY, UTAH



Photo: View of location stake

Camera Angle: Southerly



Photo: View from beginning of proposed access

Camera Angle: Westerly



**OUTLAW
ENGINEERING INC.**

P.O. BOX 1800
ROOSEVELT, UTAH 84066
(435) 232-4321

PARCEL INFORMATION SHOWN HAS NOT BEEN SURVEYED BY OUTLAW ENGINEERING, INC. AND MAY NOT REFLECT ACTUAL LOCATION OF PROPERTY LINES.

Location Photos

VERSION:	V1
SURVEYED:	7-28-14

JULY 31, 2014

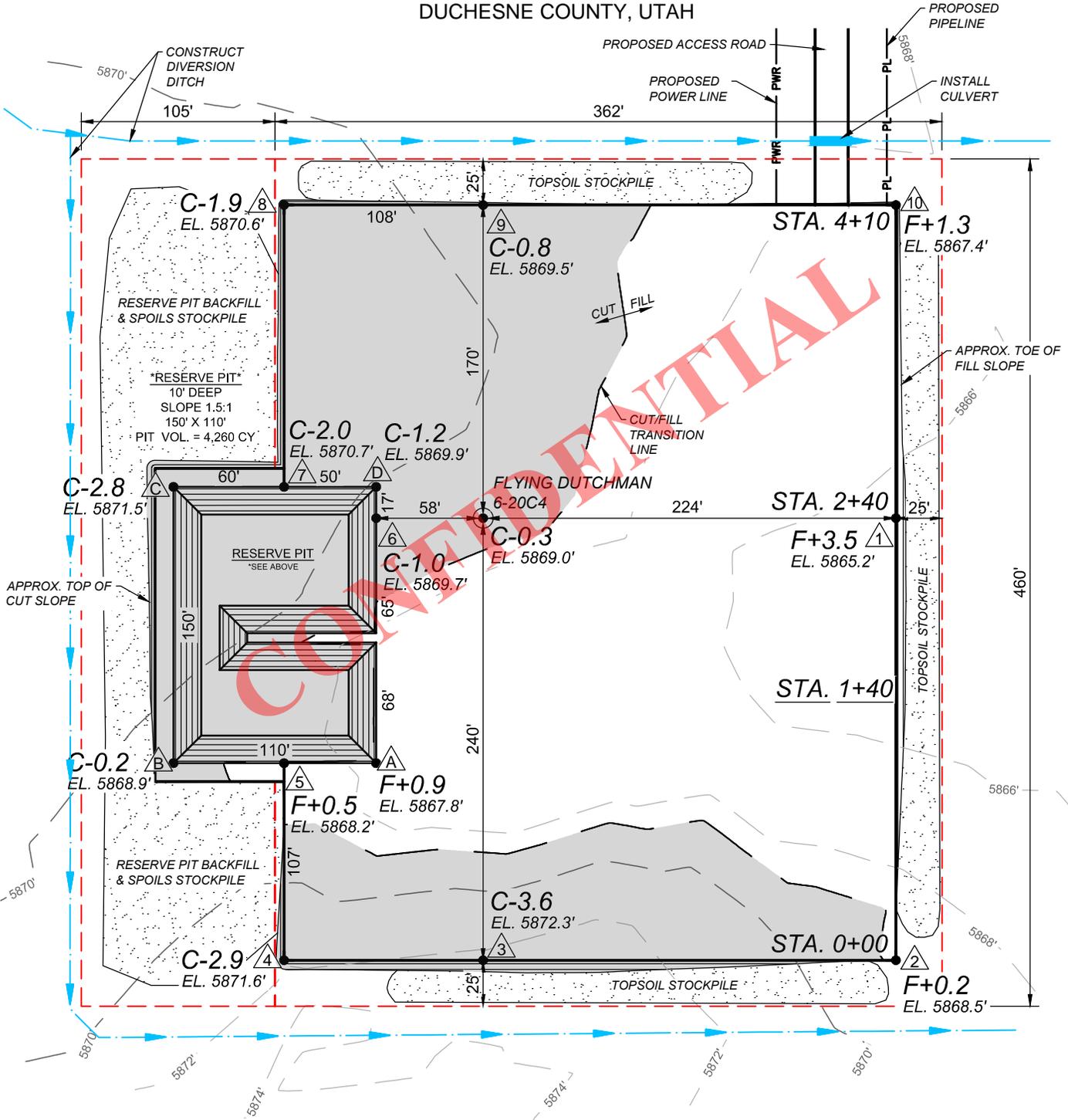
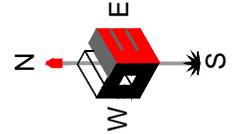
AUTHOR: BWH

PHOTO



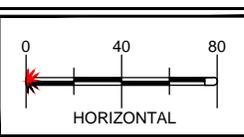
PROPOSED LOCATION LAYOUT
FLYING DUTCHMAN 6-20C4

WELL LOCATION: NW/NW SECTION 20, T3S, R4W, U.S.B.&M.
 DUCHESNE COUNTY, UTAH



LEGEND	
	EXISTING CONTOURS
	PROPOSED CONTOURS
	LIMITS OF DISTURBANCE
	EXISTING FENCE
	CORNER NUMBER
	CUT/FILL NUMBER
	EXISTING GRADE
	PROPOSED WELL LOCATION

OUTLAW ENGINEERING INC.
 P.O. BOX 1800
 ROOSEVELT, UTAH 84066
 (435) 232-4321



SUMMARY	
EXISTING GRADE @ CENTER OF WELL= 5869.0'	
FINISH GRADE ELEVATION = 5868.7'	
CUT SLOPES = 1.5 : 1	
FILL SLOPES = 1.5 : 1	
TOTAL WELL PAD AREA = 3.51 ACRES	
TOTAL WELL PAD DISTURBANCE AREA = 4.93 ACRES	
QUANTITIES	
GRUB =	NET CUT 2,830 CU YDS
FINISH =	CUT 6,340 CU YDS
	FILL 6,340 CU YDS
	NET CUT 0 CU YDS

PROPOSED LOCATION LAYOUT
FLYING DUTCHMAN 6-20C4
 WELL LOCATION: NW/NW SECTION 20, T3S, R4W, U.S.B.&M.
 DUCHESNE COUNTY, UTAH

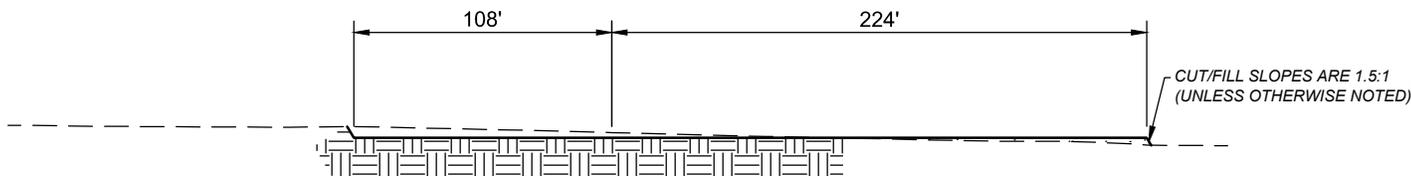
PAD/PIT GRADING	JULY 29, 2014	SHEET NO.
	SCALE: 1" = 80'	2
	DESIGN: MA,RFII DRAWN: JMH	



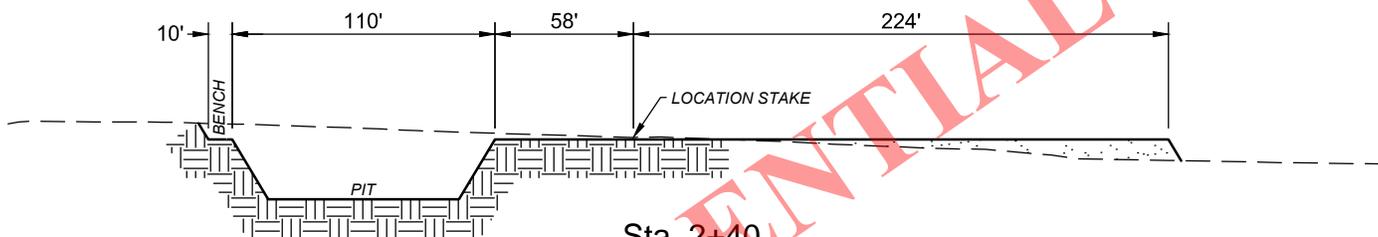
CROSS SECTIONS

FLYING DUTCHMAN 6-20C4

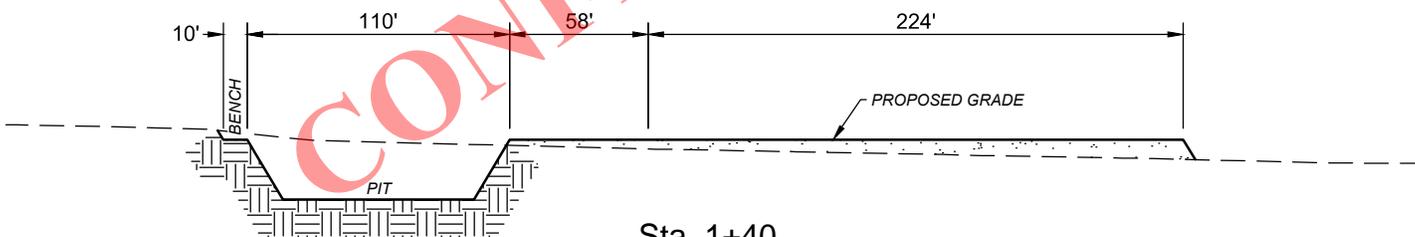
WELL LOCATION: NW/NW SECTION 20, T3S, R4W, U.S.B.&M.
 DUCHESNE COUNTY, UTAH



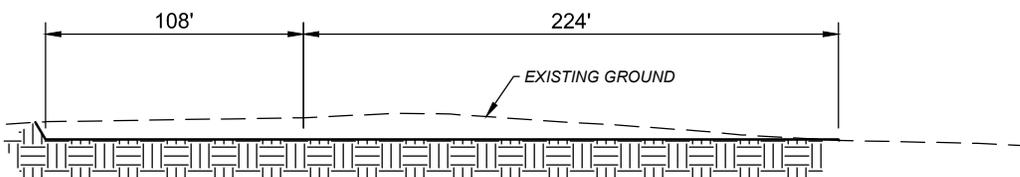
Sta. 4+10



Sta. 2+40



Sta. 1+40



Sta. 0+00

LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS

SUMMARY

EXISTING GRADE @ CENTER OF WELL= 5869.0'
 FINISH GRADE ELEVATION = 5868.7'
 CUT SLOPES = 1.5 : 1
 FILL SLOPES = 1.5 : 1
 TOTAL WELL PAD AREA = 3.51 ACRES
 TOTAL WELL PAD DISTURBANCE AREA = 4.93 ACRES

QUANTITIES

GRUB = NET CUT 2,830 CU YDS
 CUT 6,340 CU YDS
 FINISH = FILL 6,340 CU YDS
 NET CUT 0 CU YDS

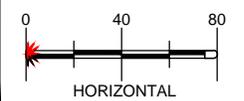
CROSS SECTIONS

FLYING DUTCHMAN 6-20C4

WELL LOCATION: NW/NW SECTION 20, T3S, R4W, U.S.B.&M.
 DUCHESNE COUNTY, UTAH



OUTLAW ENGINEERING INC.
 P.O. BOX 1800
 ROOSEVELT, UTAH 84066
 (435) 232-4321



CROSS SECTIONS

JULY 29, 2014
 SCALE: 1" = 80'
 DESIGN: MA,RFII DRAWN: JMH

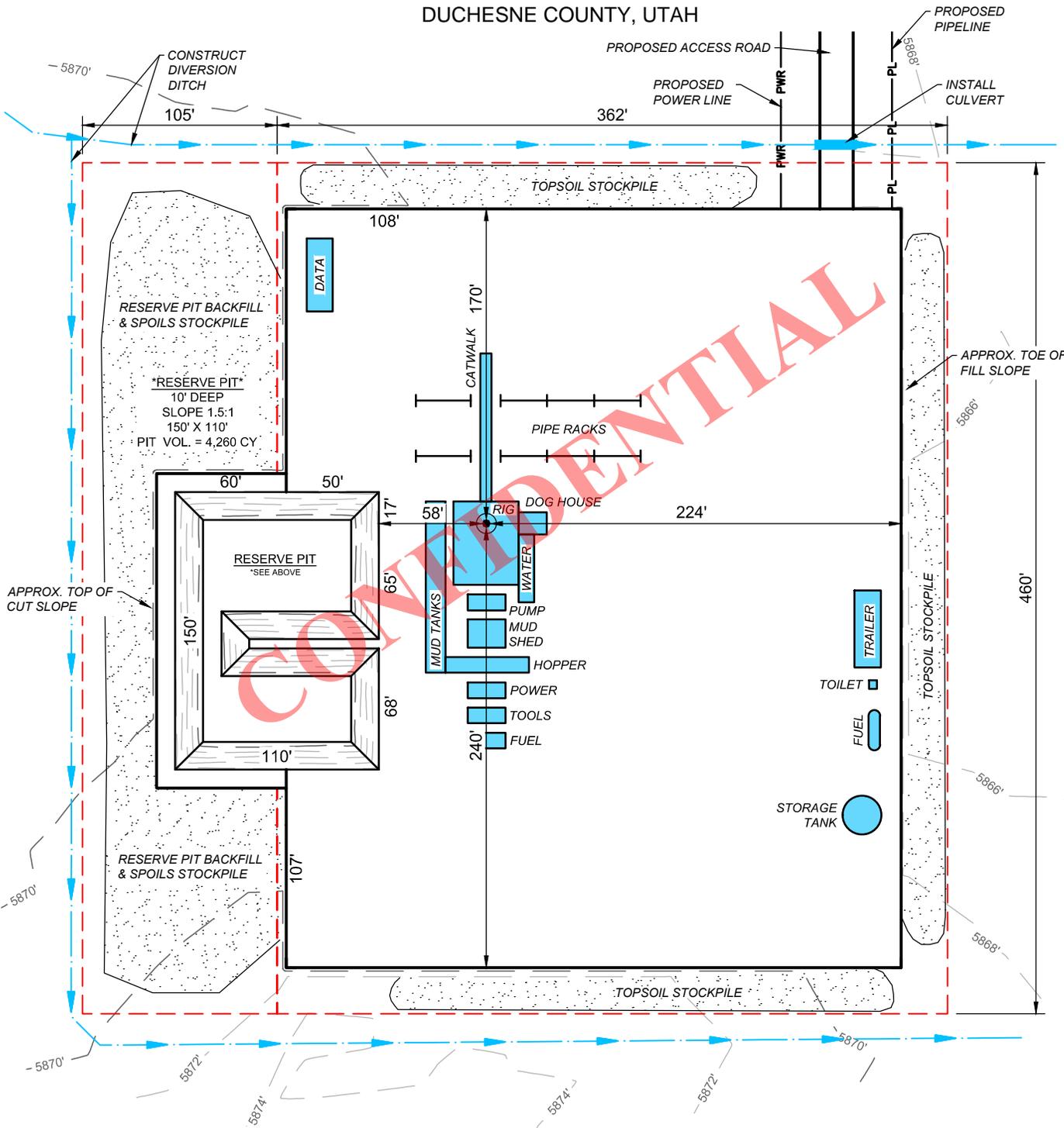
SHEET NO.
3



RIG LAYOUT

FLYING DUTCHMAN 6-20C4

WELL LOCATION: NW/NW SECTION 20, T3S, R4W, U.S.B.&M.
 DUCHESNE COUNTY, UTAH



LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- - - LIMITS OF DISTURBANCE
- X- EXISTING FENCE

- CORNER NUMBER
- CUT/FILL NUMBER
- EXISTING GRADE
- PROPOSED WELL LOCATION

SUMMARY

SEE CROSS SECTION SHEET FOR SUMMARY

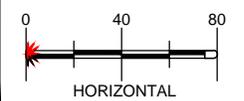
RIG LAYOUT

FLYING DUTCHMAN 6-20C4

WELL LOCATION: NW/NW SECTION 20, T3S, R4W, U.S.B.&M.
 DUCHESNE COUNTY, UTAH



OUTLAW ENGINEERING INC.
 P.O. BOX 1800
 ROOSEVELT, UTAH 84066
 (435) 232-4321



RIG LAYOUT

JULY 29, 2014
 SCALE: 1" = 80'
 DESIGN: MA,RFII DRAWN: JMH

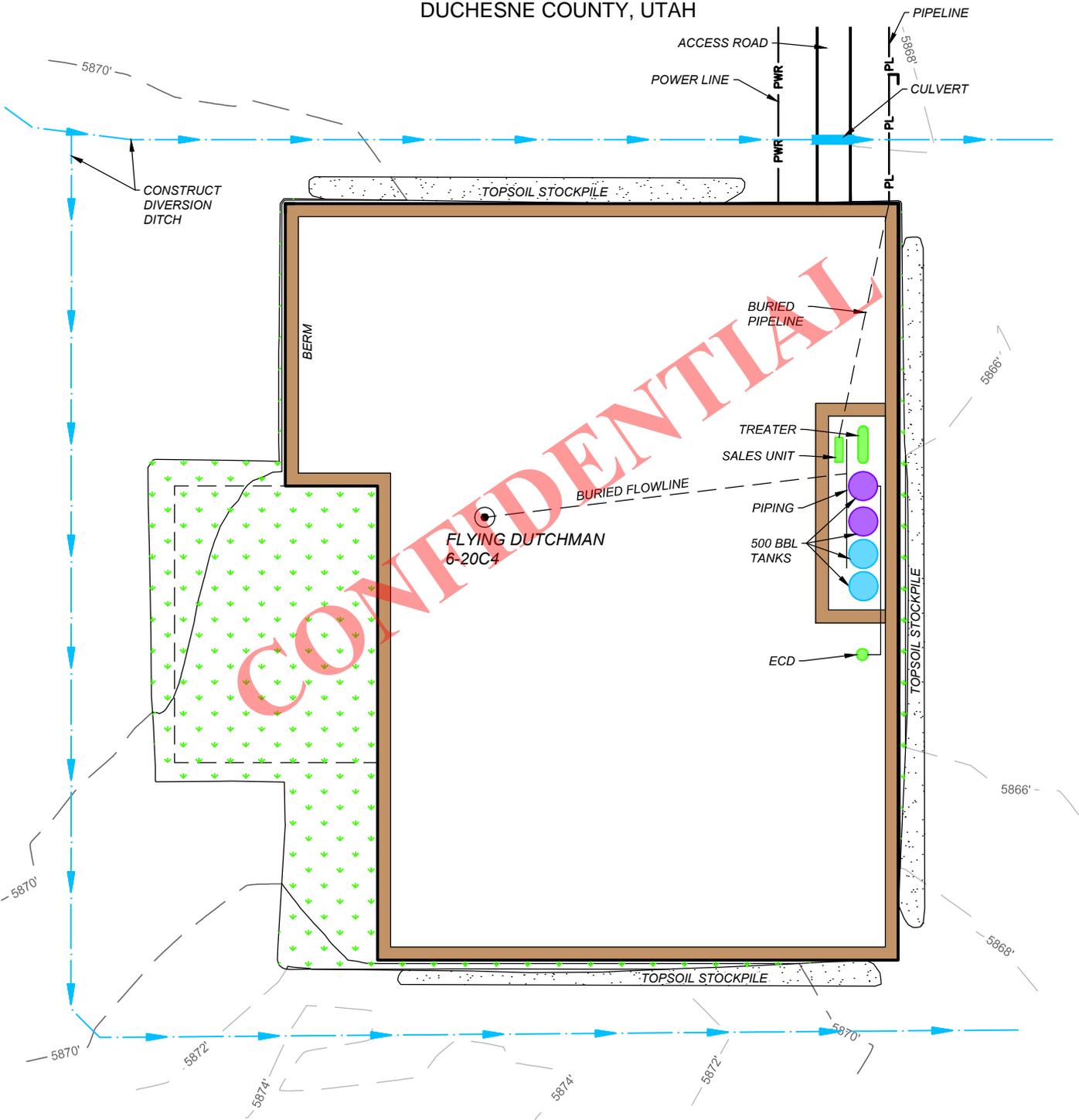
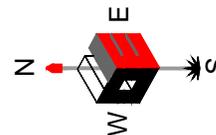
SHEET NO.
4



PRODUCTION FACILITY LAYOUT

FLYING DUTCHMAN 6-20C4

WELL LOCATION: NW/NW SECTION 20, T3S, R4W, U.S.B.&M.
 DUCHESNE COUNTY, UTAH



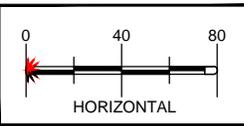
CONFIDENTIAL

LEGEND	
	EXISTING CONTOURS
	PROPOSED CONTOURS
	LIMITS OF DISTURBANCE
	EXISTING FENCE
	BERM
	CORNER NUMBER
	CUT/FILL NUMBER
	EXISTING GRADE
	PROPOSED WELL LOCATION
	RECLAIMED AREA

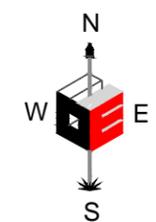
SUMMARY
APPROX UN-RECLAIMED AREA = 2.83 ACRES
APPROX RECLAIMED AREA = 0.68 ACRES

PRODUCTION FACILITY LAYOUT	
FLYING DUTCHMAN 6-20C4	
WELL LOCATION: NW/NW SECTION 20, T3S, R4W, U.S.B.&M.	
DUCHESNE COUNTY, UTAH	

OUTLAW ENGINEERING INC.
 P.O. BOX 1800
 ROOSEVELT, UTAH 84066
 (435) 232-4321



PRODUCTION LAYOUT	JULY 29, 2014	SHEET NO. 5
	SCALE: 1" = 80'	
	DESIGN: MA,RFII DRAWN: JMH	



CONFIDENTIAL

LINE TABLE		
LINE #	DIRECTION	LENGTH
L1	N00° 01' 32"W	293.47
L2	N88° 55' 42"E	460.08
L3	S00° 01' 32"E	301.87
L4	S89° 58' 28"W	460.00
L5	N89° 58' 45"E	368.95

SURFACE USE AREA DESCRIPTION
 COMMENCING AT THE WEST QUARTER CORNER OF SECTION 20, TOWNSHIP 3 SOUTH, RANGE 4 WEST OF THE UTAH SPECIAL BASE AND MERIDIAN AND RUNNING THENCE NORTH 14° 23' 46" EAST 1747.16 FEET, TO **THE TRUE POINT OF BEGINNING**; THENCE NORTH 00° 01' 32" WEST 293.47 FEET TO THE NORTH PROPERTY LINE OF ROGER MARK ONSTAD; THENCE NORTH 88° 55' 42" EAST 460.08 FEET ALONG SAID NORTH PROPERTY LINE; THENCE SOUTH 00° 01' 32" EAST 301.87 FEET; THENCE SOUTH 89° 58' 28" WEST 460.00 FEET, TO **THE TRUE POINT OF BEGINNING**. THE BASIS OF BEARING FOR THIS DESCRIPTION IS SOUTH 00° 01' 32" EAST BETWEEN THE NORTHWEST CORNER AND THE WEST QUARTER CORNER OF SAID SECTION 20.
 CONTAINING 3.14 ACRES MORE OR LESS

EP ENERGY
 LOCATION SURFACE AREA AND ACCESS ROAD, POWER LINE, AND PIPELINE CORRIDOR RIGHT-OF-WAY SURVEY ON ONSTAD FEE LANDS FOR **FLYING DUTCHMAN 6-20C4**
 LOCATED IN SECTION 20 TOWNSHIP 3 S., RANGE 4 W., U.S.B.&M. DUCHESNE COUNTY, UTAH

SURVEYOR'S CERTIFICATE
 I, DAN E. KNOWLDEN JR. DO HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR AND THAT I HOLD CERTIFICATE NO. 7173588 AS PRESCRIBED UNDER THE LAWS OF THE STATE OF UTAH AND THAT A SURVEY OF THE DESCRIBED PROPERTY HEREIN WAS PERFORMED UNDER MY DIRECTION.



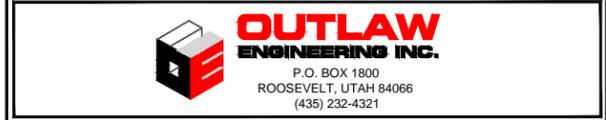
ACCESS ROAD, POWER LINE, AND PIPELINE CORRIDOR RIGHT-OF-WAY DESCRIPTION
 LOCATED IN SECTION 20, TOWNSHIP 3 SOUTH, RANGE 4 WEST OF THE UTAH SPECIAL BASE AND MERIDIAN RIGHT-OF-WAY CORRIDOR IS 66.00 FEET WIDE, 33.00 FEET ON EACH SIDE OF THE CENTERLINE. SAID CENTERLINE IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:
 COMMENCING AT THE WEST QUARTER CORNER OF SECTION 20, TOWNSHIP 3 SOUTH, RANGE 4 WEST OF THE UTAH SPECIAL BASE AND MERIDIAN AND RUNNING THENCE NORTH 27° 02' 15" EAST 1967.48 FEET, TO **THE TRUE POINT OF BEGINNING**; THENCE NORTH 89° 58' 45" EAST 368.95 FEET, TO THE WEST RIGHT-OF-WAY LINE FOR FAIRCLOUGH 4-20C4 AND THE POINT OF TERMINUS. SAID RIGHT-OF-WAY BEING 368.95 FEET IN LENGTH, THE SIDE LINES OF WHICH BEING SHORTENED OR ELONGATED TO MEET THE RIGHT-OF-WAY BOUNDARY AND SURFACE USE AREA BOUNDARY. THE BASIS OF BEARING FOR THIS DESCRIPTION IS SOUTH 00° 01' 32" EAST BETWEEN THE NORTHWEST CORNER AND THE WEST QUARTER CORNER OF SAID SECTION 20.
 CONTAINING 0.56 ACRES, MORE OR LESS

RIGHT-OF-WAY LENGTH
 ONSTAD = 368.95 FEET OR 22.36 RODS, MORE OR LESS

- LEGEND**
- = FOUND SECTION CORNER
 - = CALCULATED SECTION CORNER
 - = FOUND ORIGINAL LOT CORNER
 - = SECTION LINE
 - = QUARTER SECTION LINE
 - = SIXTEENTH SECTION LINE

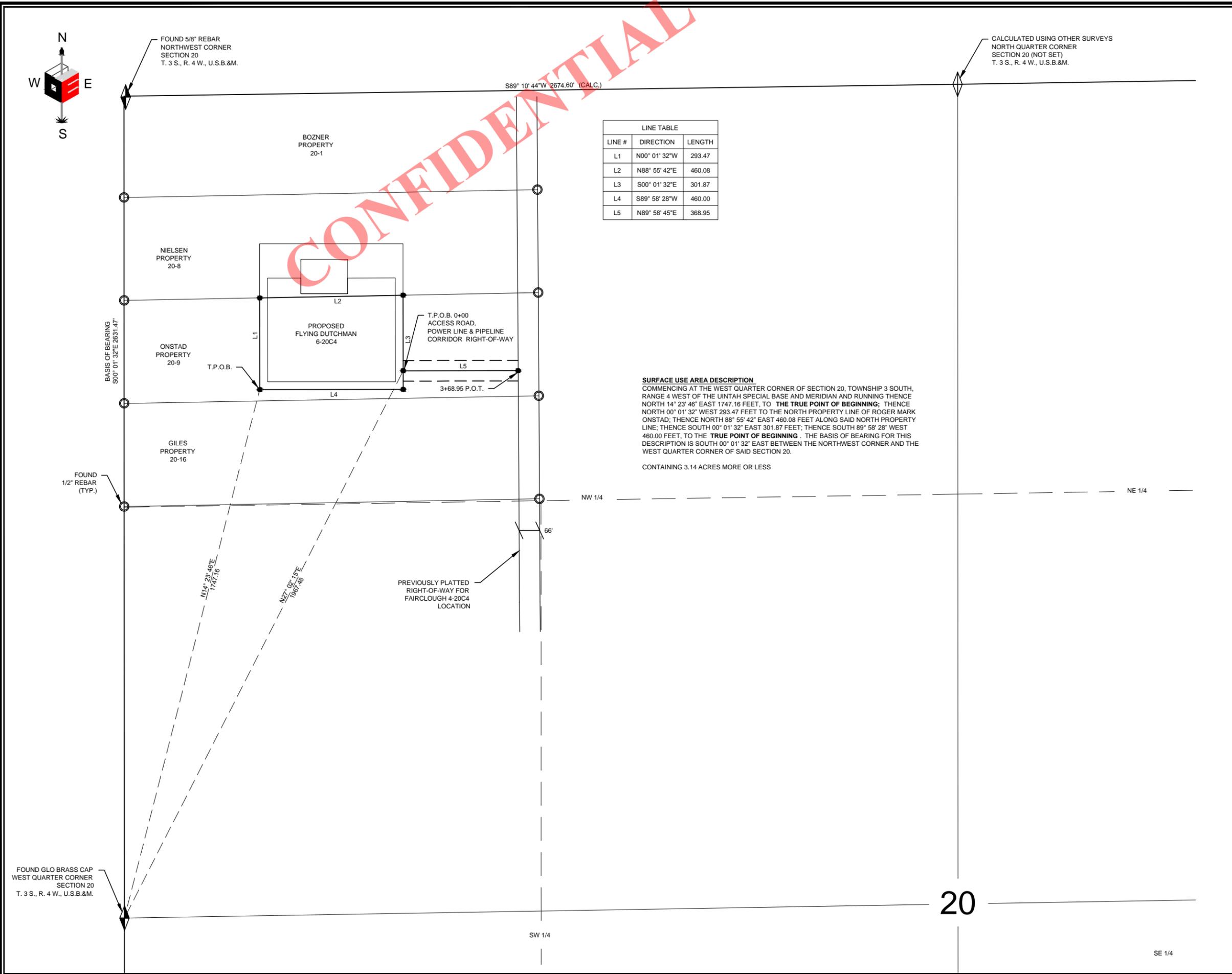
SCALE: 1" = 300'
 11X17 SHEET | REVIEWED: DEK | DRAWN: RLH

SHEET
RIGHT-OF-WAY PLAT



DATE: AUGUST 1, 2014 | SHEET NO.: 1 OF 1

RECEIVED: October 07, 2014





FOUND 5/8" REBAR
NORTHWEST CORNER
SECTION 20
T. 3 S., R. 4 W., U.S.B.&M.

CALCULATED USING OTHER SURVEYS
NORTH QUARTER CORNER
SECTION 20 (NOT SET)
T. 3 S., R. 4 W., U.S.B.&M.

S89° 10' 44"W 2674.60' (CALC.)

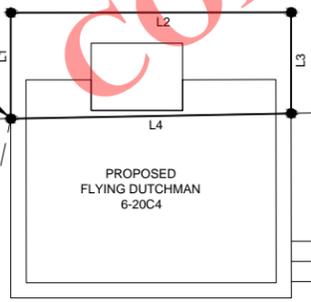
LINE TABLE		
LINE #	DIRECTION	LENGTH
L1	N00° 01' 32"W	173.53
L2	N89° 58' 28"E	460.00
L3	S00° 01' 32"E	165.13
L4	S88° 55' 42"W	460.08

BOZNER
PROPERTY
20-1

NIELSEN
PROPERTY
20-8

ONSTAD
PROPERTY
20-9

GILES
PROPERTY
20-16



PROPOSED
FLYING DUTCHMAN
6-20C4

BASIS OF BEARING
S00° 01' 32"E 26531.47'

FOUND
1/2" REBAR
(TYP.)

N12° 20' 08"E
2032.70'

PREVIOUSLY PLATTED
RIGHT-OF-WAY FOR
FAIRCLOUGH 4-20C4
LOCATION

NW 1/4

NE 1/4

66'

SW 1/4

20

SE 1/4

FOUND GLO BRASS CAP
WEST QUARTER CORNER
SECTION 20
T. 3 S., R. 4 W., U.S.B.&M.

CONFIDENTIAL

EP ENERGY

LOCATION SURFACE AREA SURVEY ON NIELSEN FEE
LANDS FOR
FLYING DUTCHMAN 6-20C4

LOCATED IN SECTION 20 TOWNSHIP 3 S., RANGE 4 W., U.S.B.&M.
DUCHESNE COUNTY, UTAH

SURVEYOR'S CERTIFICATE

I, DAN E. KNOWLDEN JR. DO HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR AND THAT I HOLD CERTIFICATE NO. 7173588 AS PRESCRIBED UNDER THE LAWS OF THE STATE OF UTAH AND THAT A SURVEY OF THE DESCRIBED PROPERTY HEREIN WAS PERFORMED UNDER MY DIRECTION.



SURFACE USE AREA DESCRIPTION

COMMENCING AT THE WEST QUARTER CORNER OF SECTION 20, TOWNSHIP 3 SOUTH, RANGE 4 WEST OF THE UTAH SPECIAL BASE AND MERIDIAN AND RUNNING THENCE NORTH 12° 20' 08" EAST 2032.70 FEET, TO THE SOUTH PROPERTY LINE OF TINA NIELSEN AND TRUE POINT OF BEGINNING; THENCE NORTH 00° 01' 32" WEST 173.53 FEET; THENCE NORTH 89° 58' 28" EAST 460.00 FEET; THENCE SOUTH 00° 01' 32" EAST 165.13 FEET TO THE SOUTH PROPERTY LINE OF SAID TINA NIELSEN; THENCE SOUTH 88° 55' 42" WEST 460.08 FEET ALONG SAID SOUTH PROPERTY LINE, TO THE TRUE POINT OF BEGINNING. THE BASIS OF BEARING FOR THIS DESCRIPTION IS SOUTH 00° 01' 32" EAST BETWEEN THE NORTHWEST CORNER AND THE WEST QUARTER CORNER OF SAID SECTION 20.

CONTAINING 1.79 ACRES MORE OR LESS

LEGEND

- = FOUND SECTION CORNER
- = CALCULATED SECTION CORNER
- = FOUND ORIGINAL LOT CORNER
- = SECTION LINE
- = QUARTER SECTION LINE
- = SIXTEENTH SECTION LINE

SCALE: 1" = 300'
11X17 SHEET

REVIEWED: DEK | DRAWN: RLH

SHEET
RIGHT-OF-WAY PLAT

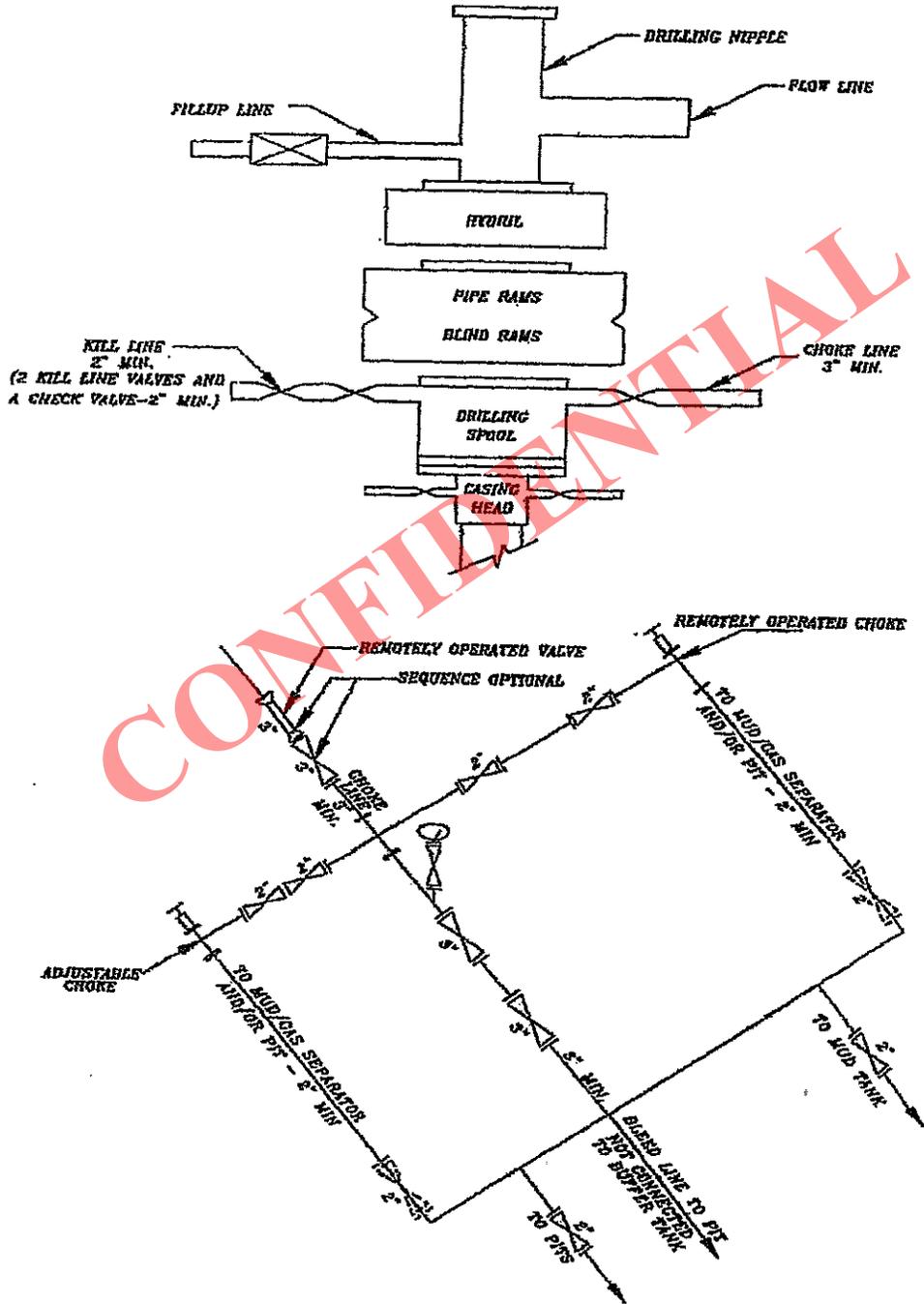
EP ENERGY



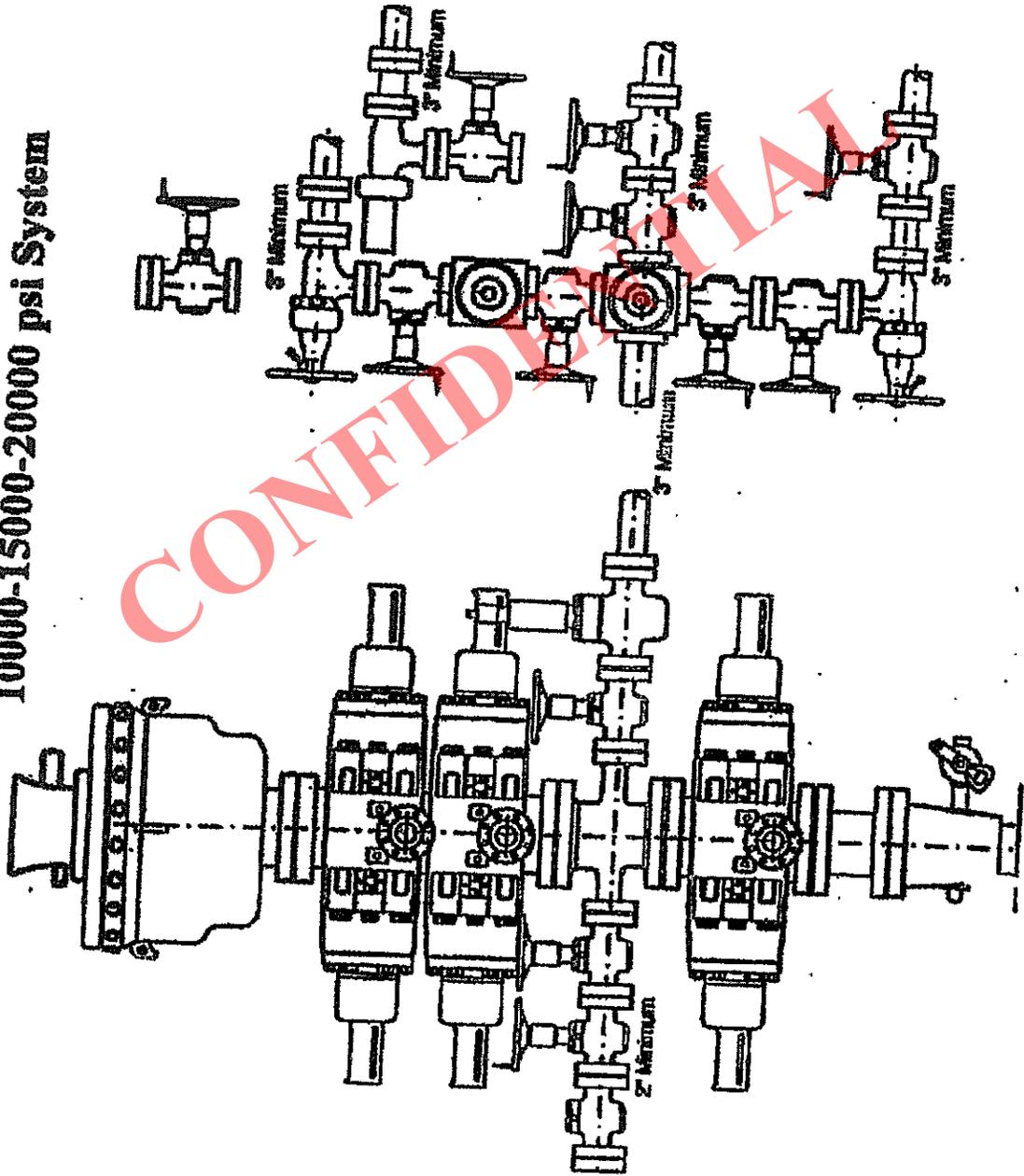
DATE
AUGUST 1, 2014

SHEET NO.
1 OF 1

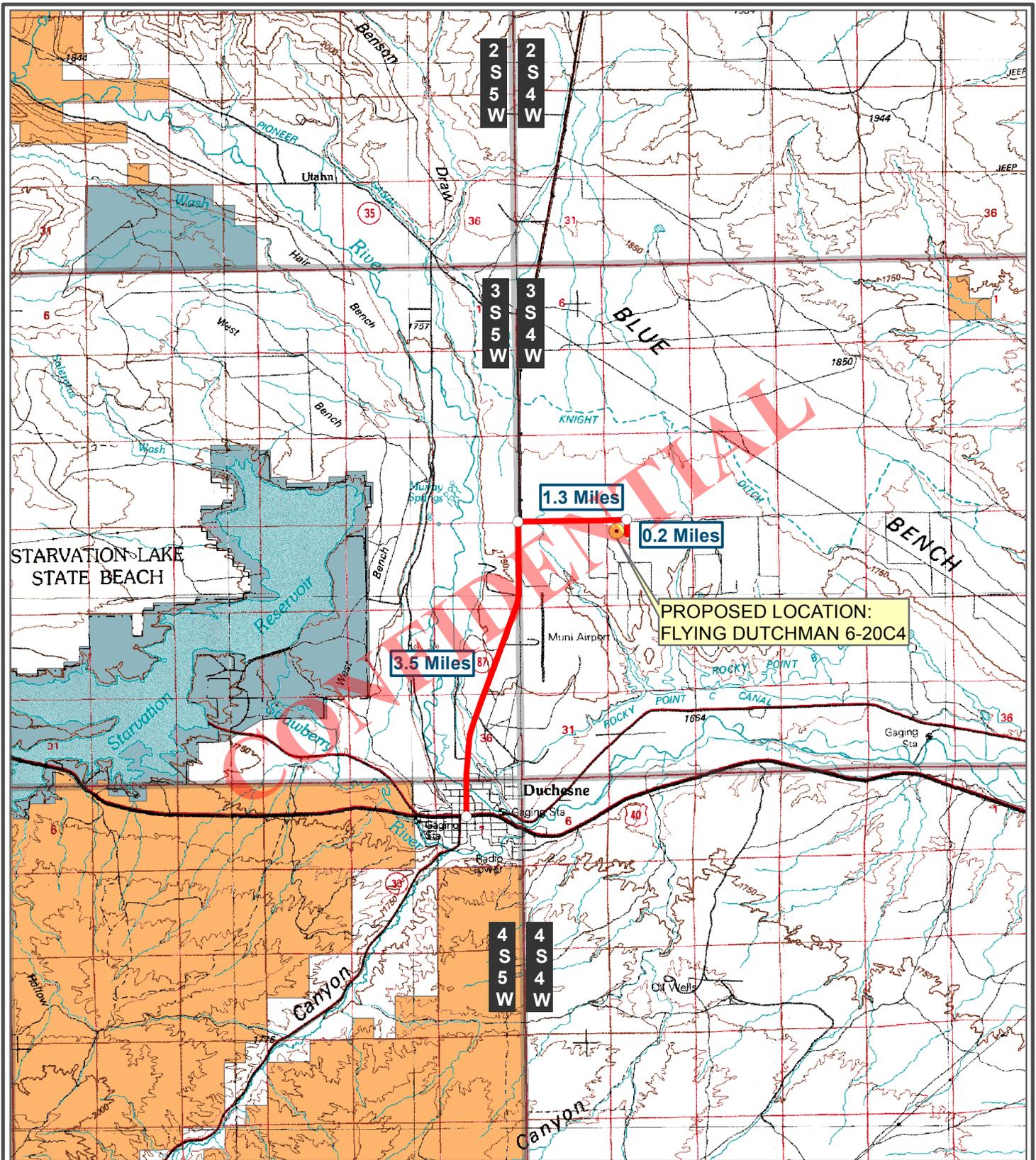
5M BOP STACK and CHOKE MANIFOLD SYSTEM



10000-15000-20000 psi System



CONFIDENTIAL



OUTLAW ENGINEERING INC.

P. O. BOX 1800
ROOSEVELT, UTAH 84066
(435) 232-4321



PARCEL INFORMATION SHOWN HAS NOT BEEN SURVEYED BY OUTLAW ENGINEERING, INC. AND MAY NOT REFLECT ACTUAL LOCATION OF PROPERTY LINES

LEGEND

- Flying Dutchman 6-20C4 Site Location
- Proposed Access Road
- Existing Access Road

■ Federal
 ■ Private
 ■ State
 ■ Tribal

FLYING DUTCHMAN 6-20C4

WELL LOCATION: NW/4W SECTION 20, T.3S, R.4W, U.S.B.&M.
DUCHEсне COUNTY, UTAH



USGS 7.5' Duchesne NE Quadrangle

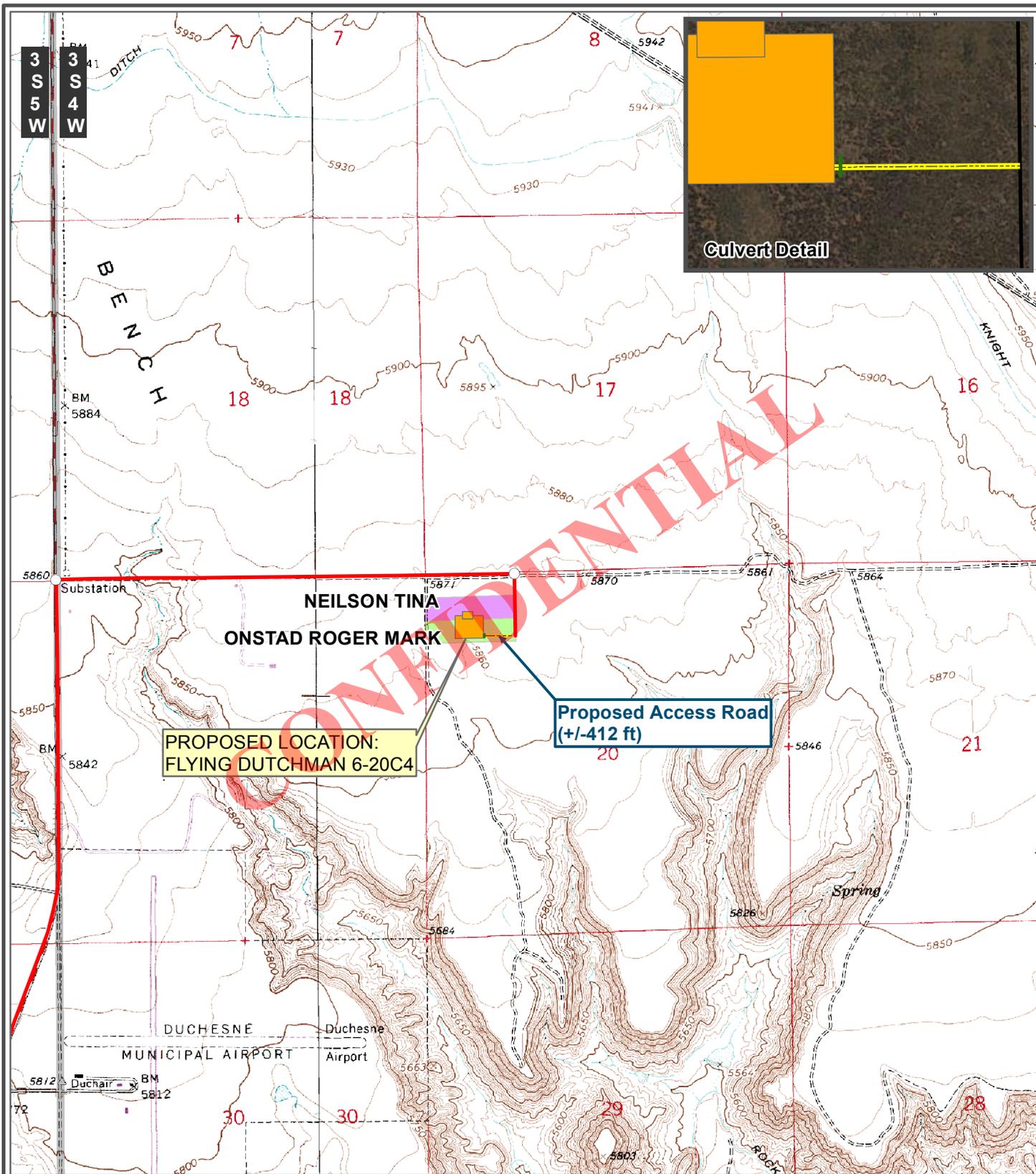
JULY 31, 2014
SCALE: 1" = 8,342'
AUTHOR: BWH

SHEET
A

Site Location



VERSION: **V1**
SURVEYED: **7-28-14**



CONFIDENTIAL

**PROPOSED LOCATION:
FLYING DUTCHMAN 6-20C4**

**Proposed Access Road
(+/-412 ft)**



**OUTLAW
ENGINEERING INC.**

P.O. BOX 1800
ROOSEVELT, UTAH 84066
(435) 232-4321



PARCEL INFORMATION SHOWN HAS NOT BEEN SURVEYED BY OUTLAW ENGINEERING, INC. AND MAY NOT REFLECT ACTUAL LOCATION OF PROPERTY LINES

**Proposed Access
Road**

0 500 1,000 1,500 2,000 Feet

VERSION: **V1**
SURVEYED: **7-28-14**

LEGEND

- Proposed Access Road
- Existing Access Road
- Culvert Required
- Proposed 66' ROW for the Fairclough 4-20C4
- Proposed Pad

Federal Private State Tribal

FLYING DUTCHMAN 6-20C4

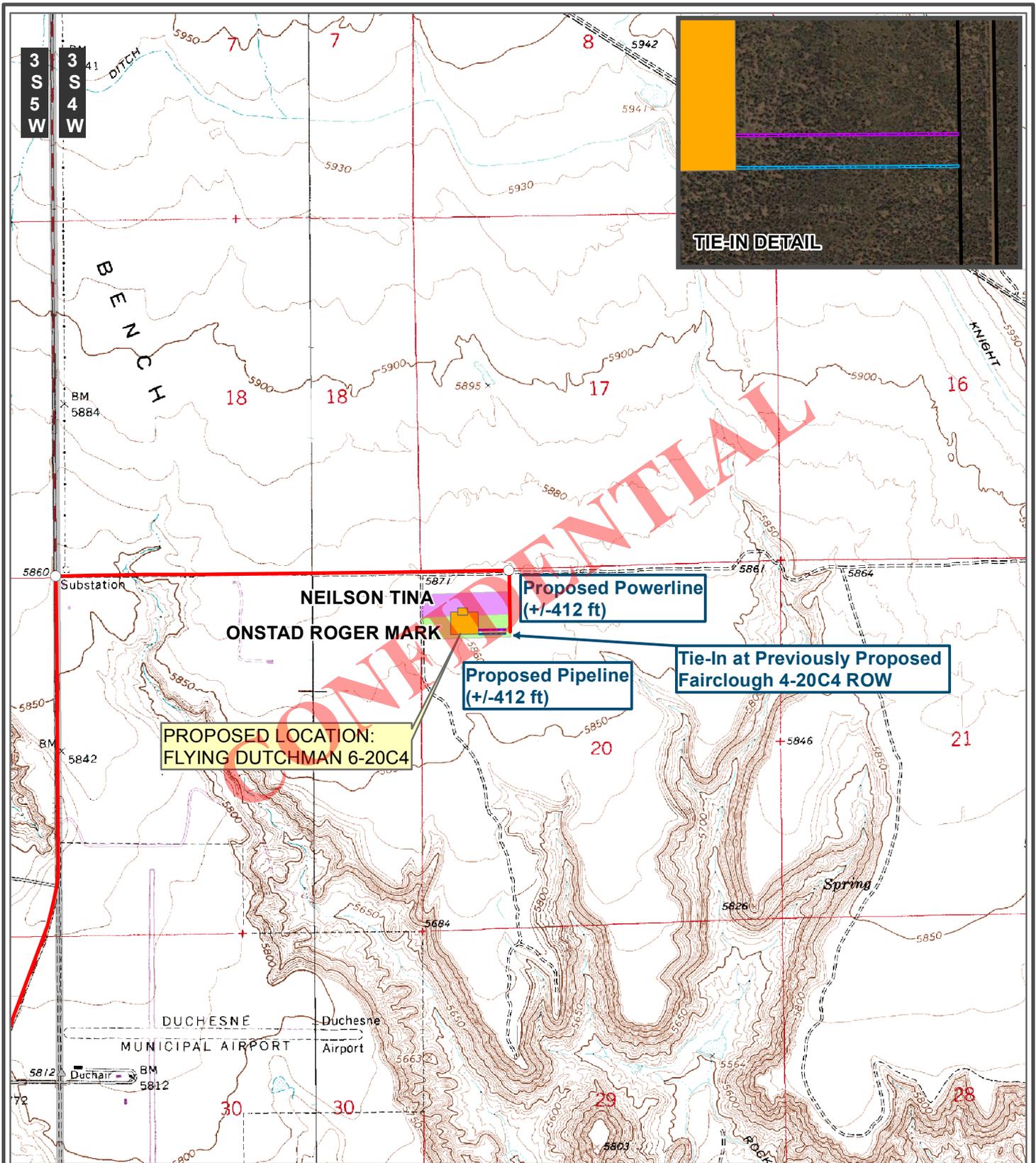
WELL LOCATION: NW/4W SECTION 20, T.3S, R.4W, U.S.B.&M.
DUCHESE COUNTY, UTAH



USGS 7.5' Duchesne NE Quadrangle 2014 Google Imagery

AUGUST 1, 2014
SCALE: 1" = 2,000'
AUTHOR: BWH

SHEET
B



CONFIDENTIAL

OUTLAW ENGINEERING INC.
 P.O. BOX 1800
 ROOSEVELT, UTAH 84066
 (435) 232-4321

PARCEL INFORMATION SHOWN HAS NOT BEEN SURVEYED BY OUTLAW ENGINEERING, INC. AND MAY NOT REFLECT ACTUAL LOCATION OF PROPERTY LINES

LEGEND

- Proposed Pipeline
- Proposed Powerline
- Existing Access Road
- Proposed 66' ROW for the Fairclough 4-20C4
- Proposed Pad

Federal
 Private
 State
 Tribal

FLYING DUTCHMAN 6-20C4

WELL LOCATION: NW/4W SECTION 20, T.3S, R.4W, U.S.B.&M.
 DUCHESNE COUNTY, UTAH

EP ENERGY

Proposed Pipeline & Powerline

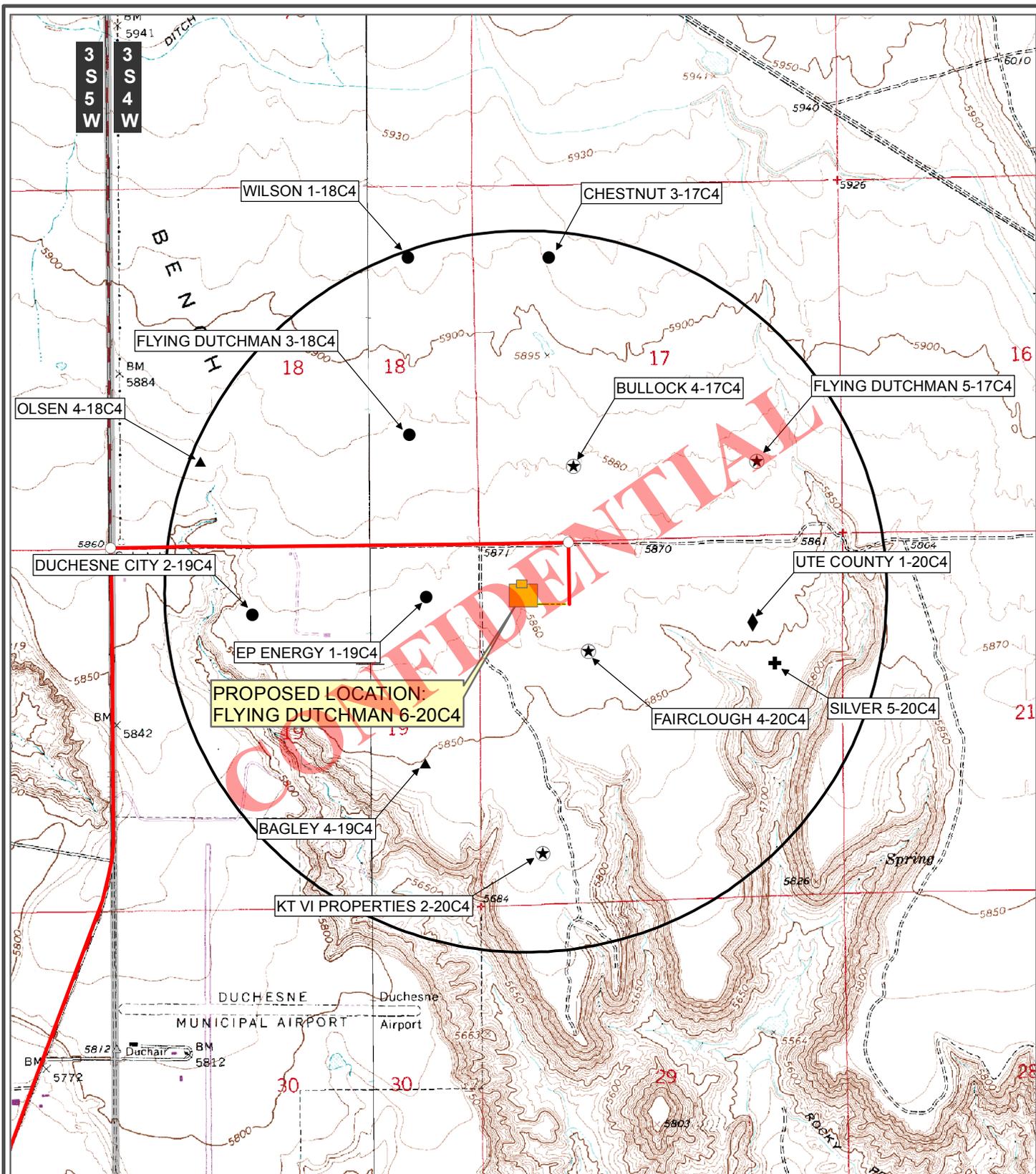
0 500 1,000 1,500 2,000 Feet

VERSION: **V1**
 SURVEYED: **7-28-14**

USGS 7.5' Duchesne NE Quadrangle 2014 Google Imagery

AUGUST 1, 2014
 SCALE: 1" = 2,000'
 AUTHOR: BWH

SHEET **C**



OUTLAW ENGINEERING INC.

P.O. BOX 1800
ROOSEVELT, UTAH 84066
(435) 232-4321



PARCEL INFORMATION SHOWN HAS NOT BEEN SURVEYED BY OUTLAW ENGINEERING, INC. AND MAY NOT REFLECT ACTUAL LOCATION OF PROPERTY LINES

Surrounding Wells



VERSION: **V1**
SURVEYED: **7-28-14**

LEGEND

- ★ New Permit
- ▲ Approved Permit
- ⊕ Drilling
- Producing
- ◆ Plugged & Abandoned
- One Mile Radius

Federal
 Private
 State
 Tribal

FLYING DUTCHMAN 6-20C4

WELL LOCATION: NW/4W SECTION 20, T.3S, R.4W, U.S.B.&M.
DUCHEсне COUNTY, UTAH



USGS 7.5' Duchesne NE Quadrangle

AUGUST 1, 2014
SCALE: 1" = 2,000'
AUTHOR: BWH

SHEET
D

AFFIDAVIT OF DAMAGE SETTLEMENT AND RELEASE

Corie A. Mathews personally appeared before me, and, being duly sworn, deposes and says:

1. My name is Corie A. Mathews. I am a Senior Landman for EP Energy E&P Company, L.P., whose address is 1001 Louisiana Street, Houston, Texas 77002 ("EP Energy").
2. EP Energy is the operator of the proposed Flying Dutchman 6-20C4 well ("the Well") to be located in the NW/4 of the NW/4 of Section 20, Township 3 South, Range 4 West, USM, Duchesne County, Utah (the "Drillsite Location"). The surface owners of the Drillsite location are Tina Nielsen, whose address is 5615 Charlie Chan Drive, San Antonio, Texas 78240 and whose telephone number is (210) 619-6831 and Roger Mark Onstad, whose address is 167 Lookout Point, South Carolina 29070 and whose telephone number is (803) 785-2841 (collectively as the "Surface Owner").
3. EP Energy and the Surface Owner have entered into a Surface Use Agreement dated September 15, 2014 and September 19, 2014 to cover any and all injuries or damages of every character and description sustained by the Surface Owner or Surface Owner's property as a result of operations associated with the drilling, completing and producing of the Well.

FURTHER AFFIANT SAYETH NOT.

Corie A. Mathews

ACKNOWLEDGMENT

STATE OF TEXAS §
 §
 COUNTY OF HARRIS §

CONFIDENTIAL

This instrument was acknowledged before me on this the 26th day of September, 2014 by Corie A. Mathews as a Senior Landman for EP ENERGY E&P COMPANY, L.P., a Delaware limited partnership, on behalf of said partnership and acknowledged to me that he executed the same as his own free and voluntary act and deed for the uses and purposes therein set forth.



Ginger M. Cearley
Notary Public in and for State of Texas

EP Energy E&P Company, L.P.

Related Surface Information

1. **Current Surface Use:**

- Livestock Grazing and Oil and Gas Production.

2. **Proposed Surface Disturbance:**

- The road will be crown and ditch. Water wings will be constructed on the access road as needed.
- The topsoil will be windrowed and re-spread in the borrow area.
- New road to be constructed will be approximately .08 miles in length and 66 feet wide.
- All equipment and vehicles will be confined to the access road, pad and area specified in the APD.

3. **Location Of Existing Wells:**

- Existing oil, gas wells within one (1) mile radius of proposed well are provided in EXHIBIT C.

4. **Location And Type Of Drilling Water Supply:**

- Drilling water: Duchesne City Water

5. **Existing/Proposed Facilities For Productive Well:**

- There are no existing facilities that will be utilized for this well.
- A pipeline corridor .08 miles will parallel the proposed access road. The corridor will contain one 4 inch gas line and one 2 inch gas line and one 2 inch Salt Water disposal line. Rehabilitation of unneeded, previously disturbed areas will consist of backfilling and contouring the reserve pit area; backsloping and contouring all cut and fill slopes. These areas will be reseeded. Refer to plans for reclamation of surface for details.
- Upgrade and maintain access roads and drainage control structures (e.g., culverts, drainage dips, ditching, etc.) as necessary to prevent soil erosion and accommodate safe, year-round traffic.

6. **Construction Materials:**

- Native soil from road and location will be used for construction materials along with gravel and/or scoria road base material. In the event that conditions should necessitate graveling of all or part of the access road and location, surfacing materials will be purchased from commercial suppliers in the marketing area.

7. **Methods For Handling Waste Disposal:**

- The reserve pit will be designed to prevent the collection of surface runoff and will be constructed with a minimum of ½ the total depth below the original ground surface on the lowest point with the pit. The pit will be lined with a 20-mil polyethylene to prevent leakage of fluids. The liner will be rolled into place and secured at the ends, i.e. buried on top of the pit berms. Prior to use, the reserve pit will be fenced on three sides; the fourth side will be fenced at the time the rig is removed. Drilling fluids, cuttings and produced water will be contained in the reserve pit (trash will be placed in the trash cage). Fluids in the reserve pit will be allowed to evaporate prior to pit burial.
- Garbage and other trash will be contained in the portable trash cage and hauled off the location to an authorized disposal site. Any trash on the pad will be cleaned up prior to the rig moving off location and hauled to an authorized disposal site.
- Sewage will be handled in Portable Toilets.
- Produced water will be placed in the reserve pit for a period not to exceed ninety days after initial production. Any hydrocarbons produced during completion work will be contained in test tanks and removed from the location at a later date.
- Water from the reserve pit may be used for drilling of additional wells. The water will be trucked along access roads as approved in pertinent APD's

8. **Ancillary Facilities:**

- There will be no ancillary facilities associated with this project.

9. Surface Reclamation Plans:

Backfilling of the pits will be done when dry. In the event of a dry hole, the location will be re-contoured, the topsoil will be distributed evenly over the entire location, and the seedbed prepared.

- Seed will be planted after September 15th, and prior to ground frost, or seed will be planted after the frost has left and before May 15th. Slopes to steep for machinery will be hand broadcast and raked with twice the specified amount of seed.
 1. The construction program and design are on the attached cut, fill and cross sectional diagrams.
 2. Prior to construction, all topsoil will be removed from the entire site and stockpiled. Topsoil for this site is the first 6 inches of soil materials.
 3. After the location has been reshaped and after redistributing the topsoil, the operator will rip and scarify the drilling platform and access road on the contour, to a depth of at least 12 inches.
- Rehabilitation will begin upon the completion of the drilling. Complete rehabilitation will depend on weather conditions and the amount of time required to dry the reserve pit.
 1. All rehabilitation work including seeding will be completed as soon as weather and the reserve pit conditions are appropriate.
 2. Landowner will be contacted for rehabilitation requirements.

10. Surface Ownership:

Tina Nielsen
5615 Charlie Chan Drive
San Antonio, TX 78240

Roger Mark Onstad
167 Lookout Point
Leesville, South Carolina 29070

Other Information:

- The surface soil consists of clay, and silt.
- Flora – vegetation consists of the following: Sagebrush, Juniper and prairie grasses.
- Fauna – antelope, deer, coyotes, raptors, small mammals, and domestic grazing animals.
- Current surface uses – Livestock grazing and mineral exploration and production.

• **Operator and Contact Persons:**

Construction and Reclamation:

EP Energy E&P Company, L.P.
Wayne Garner
PO Box 410
Altamont, Utah 84001
435-454-3394 – Office
435-823-1490 – Cell

Regarding This APD

EP Energy E&P Company, L.P.
Maria S. Gomez
1001 Louisiana, Rm 2730D
Houston, Texas 77002
713-997-5038 – Office

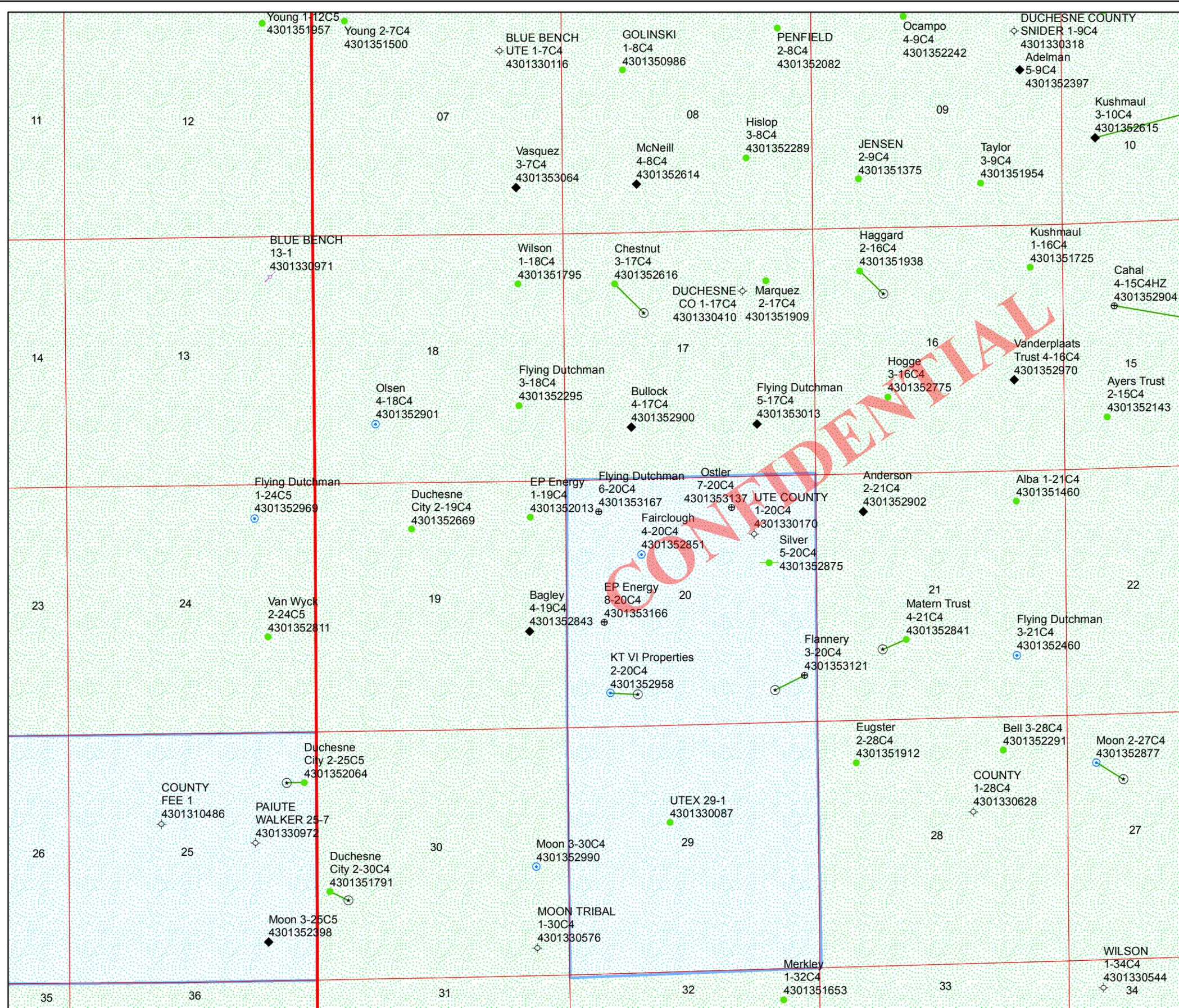
Drilling

EP Energy E&P Company, L.P.
Brad MacAfee – Drilling Engineer
1001 Louisiana, Rm 2660D
Houston, Texas 77002
713-997-6383 – office
281-813-0902 – Cell

API Number: 43-013-53167
Well Name: Flying Dutchman 6-20C4

Section: 20 Township: 3S Range: 4W Meridian: USM
 Operator: EP ENERGY E&P COMPANY, L.P.

Map Prepared: Oct. 15, 2014
 Map Produced by Lisha Cordova



Wells Query

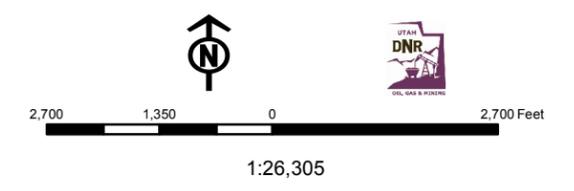
- APD - Aproved Permit
- DRL - Spuded (Drilling Commenced)
- GIW - Gas Injection
- GS - Gas Storage
- LOC - New Location
- OPS - Operation Suspended
- PA - Plugged Abandoned
- PGW - Producing Gas Well
- POW - Producing Oil Well
- SGW - Shut-in Gas Well
- SOW - Shut-in Oil Well
- TA - Temp. Abandoned
- TW - Test Well
- WDW - Water Disposal
- WW - Water Injection Well
- WSW - Water Supply Well

Units STATUS

- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields STATUS

- Unknown
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- STORAGE
- TERMINATED



Well Name	EP ENERGY E&P COMPANY, L.P. Flying Dutchman 6-20C4 430135316			
String	Surf	I1	L1	
Casing Size(")	9.625	7.000	5.000	
Setting Depth (TVD)	2000	8850	12050	
Previous Shoe Setting Depth (TVD)	0	2000	8850	
Max Mud Weight (ppg)	8.3	10.2	12.2	
BOPE Proposed (psi)	500	10000	10000	
Casing Internal Yield (psi)	5750	11220	13940	
Operators Max Anticipated Pressure (psi)	7645		12.2	

Calculations	Surf String	9.625	"
Max BHP (psi)	.052*Setting Depth*MW=	863	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	623	NO <input type="checkbox"/> diverter stack
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	423	YES <input type="checkbox"/> OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	423	NO <input type="checkbox"/> OK
Required Casing/BOPE Test Pressure=		2000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient

Calculations	I1 String	7.000	"
Max BHP (psi)	.052*Setting Depth*MW=	4684	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	3632	YES <input type="checkbox"/> 10M BOPE w/rotating head, 5M annular, spacer spool,
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	2747	YES <input type="checkbox"/> dbl rams, single w/flex rams
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	3187	NO <input type="checkbox"/> OK
Required Casing/BOPE Test Pressure=		7854	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2000	psi *Assumes 1psi/ft frac gradient

Calculations	L1 String	5.000	"
Max BHP (psi)	.052*Setting Depth*MW=	7645	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	6199	YES <input type="checkbox"/> 10M BOPE w/rotating head, 5M annular, spacer spool,
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	4994	YES <input type="checkbox"/> dbl rams, single w/flex rams
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	6941	YES <input type="checkbox"/> OK
Required Casing/BOPE Test Pressure=		9758	psi
*Max Pressure Allowed @ Previous Casing Shoe=		8850	psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO <input type="checkbox"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO <input type="checkbox"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO <input type="checkbox"/>
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

43013531670000 Flying Dutchman 6-20C4

Casing Schematic

Surface

1276

1478

TOC @ Duchesne River 0.

1200' ± BMSW
1400 BMSW-EP
1555' tail * Proposed 1500'

Surface
2000. MD

9-5/8"
MW 8.
Frac 19.3

to 1452' @ 5% w/o, tail 4269'
* Proposed 1500' / 6350'

TOC @
3281.

4000' Green River

4700' Green River (GRTNI)

5686' Mahogany

6896' Lower Green River

6907' tail * Proposed 6350'

* ✓

✓ Strip cmts.

CONFIDENTIAL

TOL @
8650.

8766' Wasatch

Intermediate
8850. MD

TOC @
9582.

to TOL @ 4% w/o

7"
MW 10.2
Frac 19.3

✓

offset inj wells

4301330971 - 4100' to 7528'
2mi NW

5"
MW 12.2

Production Liner
12050. MD

Well name:	43013531670000 Flying Dutchman 6-20C4	
Operator:	EP ENERGY E&P COMPANY, LP.	
String type:	Surface	Project ID: 43-013-53167
Location:	DUCHESNE COUNTY	

Design parameters:

Collapse

Mud weight: 8.000 ppg
Internal fluid density: 1.000 ppg

Minimum design factors:

Collapse:

Design factor 1.125

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 102 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Burst:

Design factor 1.00

Cement top: Surface

Burst

Max anticipated surface pressure: 1,760 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,000 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Non-directional string.

Re subsequent strings:

Next setting depth: 8,850 ft
Next mud weight: 10.200 ppg
Next setting BHP: 4,689 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,000 ft
Injection pressure: 2,000 psi

Tension is based on buoyed weight.
Neutral point: 1,762 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2000	9.625	40.00	N-80	LT&C	2000	2000	8.75	25448
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	727	3090	4.249	2000	5750	2.88	70.5	737	10.46 J

Prepared by: Helen Sadik-Macdonald
Div of Oil, Gas & Mining

Phone: 801 538-5357
FAX: 801-359-3940

Date: November 26, 2014
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2000 ft, a mud weight of 8 ppg. An internal gradient of .052 psi/ft was used for collapse from TD to Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	43013531670000 Flying Dutchman 6-20C4	
Operator:	EP ENERGY E&P COMPANY, LP.	
String type:	Intermediate	Project ID: 43-013-53167
Location:	DUCHESNE COUNTY	

Design parameters:

Collapse

Mud weight: 10.200 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 198 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

Cement top: 3,281 ft

Burst

Max anticipated surface pressure: 4,986 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 6,933 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on buoyed weight.
Neutral point: 7,484 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 12,050 ft
Next mud weight: 12.200 ppg
Next setting BHP: 7,637 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 8,850 ft
Injection pressure: 8,850 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	8850	7	29.00	HCP-110	LT&C	8850	8850	6.059	99940
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	4689	9200	1.962	6933	11220	1.62	217	797	3.67 J

Prepared by: Helen Sadik-Macdonald
Div of Oil, Gas & Mining

Phone: 801 538-5357
FAX: 801-359-3940

Date: November 26, 2014
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 8850 ft, a mud weight of 10.2 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	43013531670000 Flying Dutchman 6-20C4	
Operator:	EP ENERGY E&P COMPANY, LP.	
String type:	Production Liner	Project ID: 43-013-53167
Location:	DUCHESNE COUNTY	

Design parameters:

Collapse

Mud weight: 12.200 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 243 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

Cement top: 9,582 ft

Burst

Max anticipated surface pressure: 4,986 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 7,637 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on buoyed weight.
Neutral point: 11,409 ft

Liner top: 8,650 ft

Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	3450	5	18.00	HCP-110	ST-L	12050	12050	4.151	273240
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	7637	15360	2.011	7637	13940	1.83	50.6	341	6.74 J

Prepared by: Helen Sadik-Macdonald
Div of Oil, Gas & Mining

Phone: 801 538-5357
FAX: 801-359-3940

Date: November 26, 2014
Salt Lake City, Utah

Remarks:

For this liner string, the top is rounded to the nearest 100 ft. Collapse is based on a vertical depth of 12050 ft, a mud weight of 12.2 ppg. The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator EP ENERGY E&P COMPANY, L.P.
Well Name Flying Dutchman 6-20C4
API Number 43013531670000 **APD No** 10378 **Field/Unit** ALTAMONT
Location: 1/4,1/4 NWNW **Sec** 20 **Tw** 3.0S **Rng** 4.0W 700 FNL 700 FWL
GPS Coord (UTM) 553816 4451390 **Surface Owner** Tina Nielsen

Participants

Randy Fredrick (EP Energy Construction); Kelsey Carter (Independent Landman, KC Land Services, On Behalf of Transcontinental Oil Company As Agent for EP Energy E&P Company, LP); Dennis Ingram (DOGM)

Regional/Local Setting & Topography

The proposed Flying Dutchman 6-20C4 staked up 3.54 miles north of Duchesne, then east along a county road for 1.3 miles, then south along access road for another 0.20 miles into this well pad. Regionally, this well is located in northeastern Utah in the Uintah Basin along the southern edge of Blue Bench out near Rocky Point, where several canyons head up and drain snow melt or storm waters south toward the Duchesne River Corridor. The topography at the well pad is open rangelands with good stands of sagebrush, bunch grass and cactus that slopes gently to the south. The Duchesne Municipal Airport is located approximately 1.0 miles southwest of this site.

Surface Use Plan

Current Surface Use
Wildlife Habitat

New Road Miles	Well Pad	Src Const Material	Surface Formation
0.08	Width 407 Length 410	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Sagebrush, bunch grass, prickly pear cactus; potential mule deer, mountain lion, coyote, fox, raccoon, rabbits, ground squirrels and smaller mammals common to or near the Duchesne River bottoms.

Soil Type and Characteristics

Reddish, fine-grained sand with some clays and gravels

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N**Drainage Diversion Required?** Y

Around location both east and south

Berm Required? Y**Erosion Sedimentation Control Required?** N**Paleo Survey Run?** N **Paleo Potential Observed?** N **Cultural Survey Run?** N **Cultural Resources?** N**Reserve Pit****Site-Specific Factors****Site Ranking**

Distance to Groundwater (feet)	>200	0
Distance to Surface Water (feet)	>1000	0
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)	>1320	0
Native Soil Type	High permeability	20
Fluid Type	Fresh Water	5
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)		0
Affected Populations		
Presence Nearby Utility Conduits	Not Present	0
Final Score		25

1 Sensitivity Level

Characteristics / Requirements

Proposed reserve pit off the north side of location in cut measuring 110' wide by 150' long by 12' deep

Closed Loop Mud Required? **Liner Required?** Y **Liner Thickness** 20 **Pit Underlayment Required?****Other Observations / Comments**

Drainage diversions to west and south around location, topsoil storage off east and west side of location, surface slopes southerly, no other issues noted

Dennis Ingram
Evaluator10/21/2014
Date / Time

**Application for Permit to Drill
Statement of Basis
Utah Division of Oil, Gas and Mining**

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
10378	43013531670000	LOCKED	OW	P	No
Operator	EP ENERGY E&P COMPANY, L.P.		Surface Owner-APD	Tina Nielsen	
Well Name	Flying Dutchman 6-20C4		Unit		
Field	ALTAMONT		Type of Work	DRILL	
Location	NWNW 20 3S 4W U 700 FNL	700 FWL	GPS Coord		
	(UTM) 553819E	4451396N			

Geologic Statement of Basis

EP proposes to set 2,000 feet of surface casing both of which will be cemented to surface. The surface and intermediate holes will be drilled utilizing fresh water mud. The estimated depth to the base of moderately saline ground water is 1,200 feet. A search of Division of Water Rights records indicates that there are 12 water wells within a 10,000 foot radius of the center of Section 20. These wells probably produce water from the Duchesne River Formation and associated alluvium. Depths of the wells fall in the range of 57-370 feet. The wells are listed as being used for irrigation, stock watering, municipal and domestic. The proposed drilling, casing and cement program should adequately protect the highly used Duchesne River aquifer.

Brad Hill
APD Evaluator

10/27/2014
Date / Time

Surface Statement of Basis

Surface slopes gently south having two and three feet of cut along the north edge and a foot or less fill along the southern edges. Shallow drainages running south along the eastern and western side of location shall be re-routed outside the project area. A reserve pit is planned off the north side of the well pad in cut, and shall be lined with a 20 mil synthetic liner to assure containment. No other issues were observed during the presite meeting.

A presite visit was scheduled for the Flying Dutchman 6-20C4 well to take input and address issues regarding the construction and drilling of this well. The well pad spreads across two individual landowner's property and attempts by telephone were made to contact each before the presite meeting. Neither party answered or responded to the phone messages. A signed landowner agreement between the operator and these two surface owners is in place.

Dennis Ingram
Onsite Evaluator

10/21/2014
Date / Time

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 20 mils shall be properly installed and maintained in the reserve pit.
Pits	The reserve pit should be located on the north side of the location.
Surface	Drainages adjacent to the proposed pad shall be diverted around the location.
Surface	The well site shall be bermed to prevent fluids from entering or leaving the pad.

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 10/7/2014

API NO. ASSIGNED: 43013531670000

WELL NAME: Flying Dutchman 6-20C4

OPERATOR: EP ENERGY E&P COMPANY, L.P. (N3850)

PHONE NUMBER: 713 997-5038

CONTACT: Maria S. Gomez

PROPOSED LOCATION: NWNW 20 030S 040W

Permit Tech Review:

SURFACE: 0700 FNL 0700 FWL

Engineering Review:

BOTTOM: 0700 FNL 0700 FWL

Geology Review:

COUNTY: DUCHESNE

LATITUDE: 40.21125

LONGITUDE: -110.36755

UTM SURF EASTINGS: 553819.00

NORTHINGS: 4451396.00

FIELD NAME: ALTAMONT

LEASE TYPE: 4 - Fee

LEASE NUMBER: Fee

PROPOSED PRODUCING FORMATION(S): GREEN RIVER(LWR)-WASATCH

SURFACE OWNER: 4 - Fee

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

LOCATION AND SITING:

 PLAT R649-2-3. Bond: STATE/FEE - 400JU0708

Unit:

 Potash R649-3-2. General Oil Shale 190-5 Oil Shale 190-3 R649-3-3. Exception Oil Shale 190-13 Drilling Unit Water Permit: Duchesne City

Board Cause No: Cause: 139-124

 RDCC Review:

Effective Date: 11/6/2014

 Fee Surface Agreement

Siting: 8 wells, 660 F Sec. Line 990 F other wells

 Intent to Commingle R649-3-11. Directional Drill

Commingle Approved

Comments: Presite Completed

Stipulations: 5 - Statement of Basis - bhill
12 - Cement Volume (3) - hmacdonald
25 - Surface Casing - hmacdonald



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: Flying Dutchman 6-20C4
API Well Number: 43013531670000
Lease Number: Fee
Surface Owner: FEE (PRIVATE)
Approval Date: 12/1/2014

Issued to:

EP ENERGY E&P COMPANY, L.P., 1001 Louisiana, Houston, TX 77002

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause: 139-124. The expected producing formation or pool is the GREEN RIVER(LWR)-WASATCH Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Cement volume for the 7" intermediate string shall be determined from actual hole diameter in order to place lead cement from the pipe setting depth back to 1500' MD and tail cement to 500' above the Lower Green River as indicated in the submitted drilling plan.

Surface casing shall be cemented to the surface.

Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan - contact Dustin Doucet

- Significant plug back of the well - contact Dustin Doucet
- Plug and abandonment of the well - contact Dustin Doucet

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well - contact Carol Daniels
OR
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website
at <http://oilgas.ogm.utah.gov>
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing - contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program
- contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well - contact Dan Jarvis

Contact Information:

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
801-231-8956 - after office hours

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) - due within 5 days of spudding the well
- Monthly Status Report (Form 9) - due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) - due prior to implementation
- Written Notice of Emergency Changes (Form 9) - due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) - due prior to implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion
- Well Completion Report (Form 8) - due within 30 days after completion or plugging

Approved By:

Approved by:

A handwritten signature in black ink, appearing to read "J. Rogers", written in a cursive style.

For John Rogers
Associate Director, Oil & Gas



Alexis Huefner <alexishuefner@utah.gov>

24 Hr Notice of Spud

1 message

LANDRIG009 (Precision 406) <LANDRIG009@epenergy.com> Sat, Dec 6, 2014 at 2:07 AM
To: "alexishuefner@utah.gov" <alexishuefner@utah.gov>, "MacAfee, Bradley D" <Brad.MacAfee@epenergy.com>, "caroldaniels@utah.gov" <caroldaniels@utah.gov>, "dennisingram@utah.gov" <dennisingram@utah.gov>, "Dodd, Robert W" <Robert.Dodd@epenergy.com>, "Mangum, Danny R (Contractor)" <danny.mangum@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "DERDEN, ROY LYNN (Contractor)" <Roy.Derden@epenergy.com>

24 Hr Notice of Spud

CONFIDENTIAL

Well Name: Flying Dutchman 6-20C4

API Well Number: 43013531670000

Field: Altamont

County: Duchesne

Mineral Owner: Fee

700 FNL 700 FWL
NWNW 20 3S 4W

Leon Ross Drilling

Rig #35 Bucket Rig will be Spudded in on the above well for EP Energy LLC.

Thanks,

Lloyd Rowell / Morgan Harden

EP Energy / PD 406

713-997-1220 (Rig)

435-823-1764 (Cell)

CONFIDENTIAL



Carol Daniels <caroldaniels@utah.gov>

NWNW S-20 T03S R04W FEB LEASE

24 HR NOTICE OF RUNNING 7" CASING & CEMENTING.

1 message

LANDRIG009 (Precision 406) <LANDRIG009@epenergy.com>

Tue, Dec 30, 2014 at 2:47 AM

To: "alexishuefner@utah.gov" <alexishuefner@utah.gov>, "MacAfee, Bradley D" <Brad.MacAfee@epenergy.com>, "caroldaniels@utah.gov" <caroldaniels@utah.gov>, "dennisingram@utah.gov" <dennisingram@utah.gov>, "Dodd, Robert W" <Robert.Dodd@epenergy.com>, "Mangum, Danny R (Contractor)" <danny.mangum@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "Derden, Roy Lynn (Contractor)" <Roy.Derden@epenergy.com>

RE: EP ENERGY

FLYING DUTCHMAN 6-20C4

API # 43013531670000

ALTAMONT FIELD

DUCHESNE COUNTY

We plan on running 7" HCP-110 29# LTC Intermediate casing to +/- 8,860' and pumping cement in the next 24 hours.

Thanks,

Lloyd Rowell / Morgan Harden

EP Energy / PD 406

713-997-1220 (Rig)

435-823-1764 (Cell)

THIS E-MAIL AND ANY MATERIALS TRANSMITTED WITH IT MAY CONTAIN CONFIDENTIAL OR PROPRIETARY MATERIAL FOR THE SOLE USE OF THE INTENDED RECIPIENT. ANY REVIEW, USE, DISTRIBUTION OR DISCLOSURE BY OTHERS IS STRICTLY PROHIBITED. IF YOU ARE NOT THE INTENDED RECIPIENT, OR AUTHORIZED TO RECEIVE THE INFORMATION FROM THE RECIPIENT, PLEASE NOTIFY THE SENDER BY REPLY E-MAIL AND DELETE ALL COPIES OF THIS MESSAGE.

CONFIDENTIAL

Carol Daniels <caroldaniels@utah.gov>

NWNW S-20 T03S R04W FEE LEASE

Update Flying Dutchman 6-20C4 API # 43013531670000

1 message

LANDRIG009 (Precision 406) <LANDRIG009@epenergy.com>

Tue, Dec 23, 2014 at 9:29 PM

To: "alexishuefner@utah.gov" <alexishuefner@utah.gov>, "MacAfee, Bradley D" <Brad.MacAfee@epenergy.com>, "caroldaniels@utah.gov" <caroldaniels@utah.gov>, "dennisingram@utah.gov" <dennisingram@utah.gov>, "Dodd, Robert W" <Robert.Dodd@epenergy.com>, "Mangum, Danny R (Contractor)" <danny.mangum@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "Derden, Roy Lynn (Contractor)" <Roy.Derden@epenergy.com>

RE: EP ENERGY

FLYING DUTCHMAN 6-20C4

API # 43013531670000

ALTAMONT FIELD

DUCHESNE COUNTY

We moved in with Precision Drilling Rig 406 on 12/20/14. Nippled Up 11" 10M BOPE. Finished Testing BOPE & 9-5/8" Surface Casing 12/22/14 @ 23:30hrs. Commenced drilling 8 3/4" Intermediate section @ 09:30hrs 12/23/14.

Regards,

Tony Wilkerson / Bill Owen

EP Energy LLC

PD Rig 406

Rig: 713-997-1220

Cell: 435-823-1764

THIS E-MAIL AND ANY MATERIALS TRANSMITTED WITH IT MAY CONTAIN CONFIDENTIAL OR PROPRIETARY MATERIAL FOR THE SOLE USE OF THE INTENDED RECIPIENT. ANY REVIEW, USE, DISTRIBUTION OR DISCLOSURE BY OTHERS IS STRICTLY PROHIBITED. IF YOU ARE NOT THE INTENDED RECIPIENT, OR AUTHORIZED TO RECEIVE THE INFORMATION FROM THE RECIPIENT, PLEASE NOTIFY THE SENDER BY REPLY E-MAIL AND DELETE ALL COPIES OF THIS MESSAGE.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: Fee
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
		7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Oil Well	8. WELL NAME and NUMBER: Flying Dutchman 6-20C4	
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY, L.P.	9. API NUMBER: 43013531670000	
3. ADDRESS OF OPERATOR: 1001 Louisiana , Houston, TX, 77002	PHONE NUMBER: 713 997-5038 Ext	9. FIELD and POOL or WILDCAT: ALTAMONT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0700 FNL 0700 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 20 Township: 03.0S Range: 04.0W Meridian: U	COUNTY: DUCHESNE	
	STATE: UTAH	
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 1/19/2015 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PLUG BACK <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> APD EXTENSION <input type="checkbox"/> WILDCAT WELL DETERMINATION <input checked="" type="checkbox"/> OTHER	
OTHER: <input style="width: 100px;" type="text" value="Initial Completion"/>		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
<p>EP plans to complete in the Wasatch. Please see attached for details.</p> <p>Thanks,</p>		
<p>Accepted by the Utah Division of Oil, Gas and Mining</p> <p>FOR RECORD ONLY</p> <p>January 15, 2015</p>		
NAME (PLEASE PRINT) Maria S. Gomez	PHONE NUMBER 713 997-5038	TITLE Principal Regulatory Analyst
SIGNATURE N/A	DATE 1/15/2015	

Flying Dutchman 6-20C4

Initial Completion

API # : 4301353167

The following precautions will be taken until the RCA for the Conover is completed:

1. Review torque turning and running of the 7" and 5" liner of anomalies.
2. Test and chart casing for 30 minutes, noting pressure if any on surface casing.
3. Test all lubricators, valves and BOP's to working pressure.
4. A frac tree with BOP equipment will be utilized during the stimulation treatment.
5. Monitor the surface casing during frac:
 - a. Lay a flowline to the flow back tank and keep the valve open.
 - b. This line will remain in place until a wire line set retrievable packer is in place isolating the casing after the frac.
6. 2 7/8" tubing will be run to isolate the casing during the flow back of the well.
7. Well pressure and annulus pressure would be monitored during this time until the well is ready for pump.

Completion Information (Wasatch Formation)

- | | |
|-----------------|--|
| Stage #1 | RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~10975' – 11321' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of Power Prop 30/50. Total clean water volume is 3660 gals. |
| Stage #2 | RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~10576' – 10888' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of Power Prop 30/50. Total clean water volume is 3653 gals. |
| Stage #3 | RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~10249' – 10532' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3647 gals. |
| Stage #4 | RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~9900' – 10178' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3641 gals. |
| Stage #5 | RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~9622' – 9871' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3636 gals. |

Stage #6 RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~9373' – 9588' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3632 gals.

Stage #7 RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~9127' – 9340' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3627 gals.

Stage #8 RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~8862' – 9094' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3623 gals.

Stimulation Summary

	Top Perf	Btm. Perf	Gross Interval	Plug Depth	Net Perf Length	Total Shots	Perf Intervals	Type of Prop	Lbs of Prop	Lbs/ft	Lbs of 100 Mesh	Gals of HCL (15%)	BBLs of Clean H2O	BBLs of Slurry
Stage #1	10,975	11,321	346	NA	23	69	17	Power Prop 30/50	150,000	434	3,000	5,000	3,660	4,066
Stage #2	10,576	10,888	312	10,903	23	69	17	Power Prop 30/50	150,000	481	3,000	5,000	3,653	4,059
Stage #3	10,249	10,532	283	10,547	23	69	17	TLC 30/50	150,000	530	3,000	5,000	3,647	4,048
Stage #4	9,900	10,178	278	10,193	23	69	17	TLC 30/50	150,000	540	3,000	5,000	3,641	4,042
Stage #5	9,622	9,871	249	9,886	23	69	17	TLC 30/50	150,000	602	3,000	5,000	3,636	4,037
Stage #6	9,373	9,588	215	9,603	22	66	17	TLC 30/50	150,000	698	3,000	5,000	3,632	4,032
Stage #7	9,127	9,340	213	9,355	23	69	17	TLC 30/50	150,000	704	3,000	5,000	3,627	4,028
Stage #8	8,862	9,094	232	9,109	22	66	17	TLC 30/50	150,000	647	3,000	5,000	3,623	4,023
Average per Stage			266		23	68	17		150,000	579	3,000	5,000	3,640	4,042
Totals per Well			2,128		182	546	136		1,200,000		24,000	40,000	29,119	32,334

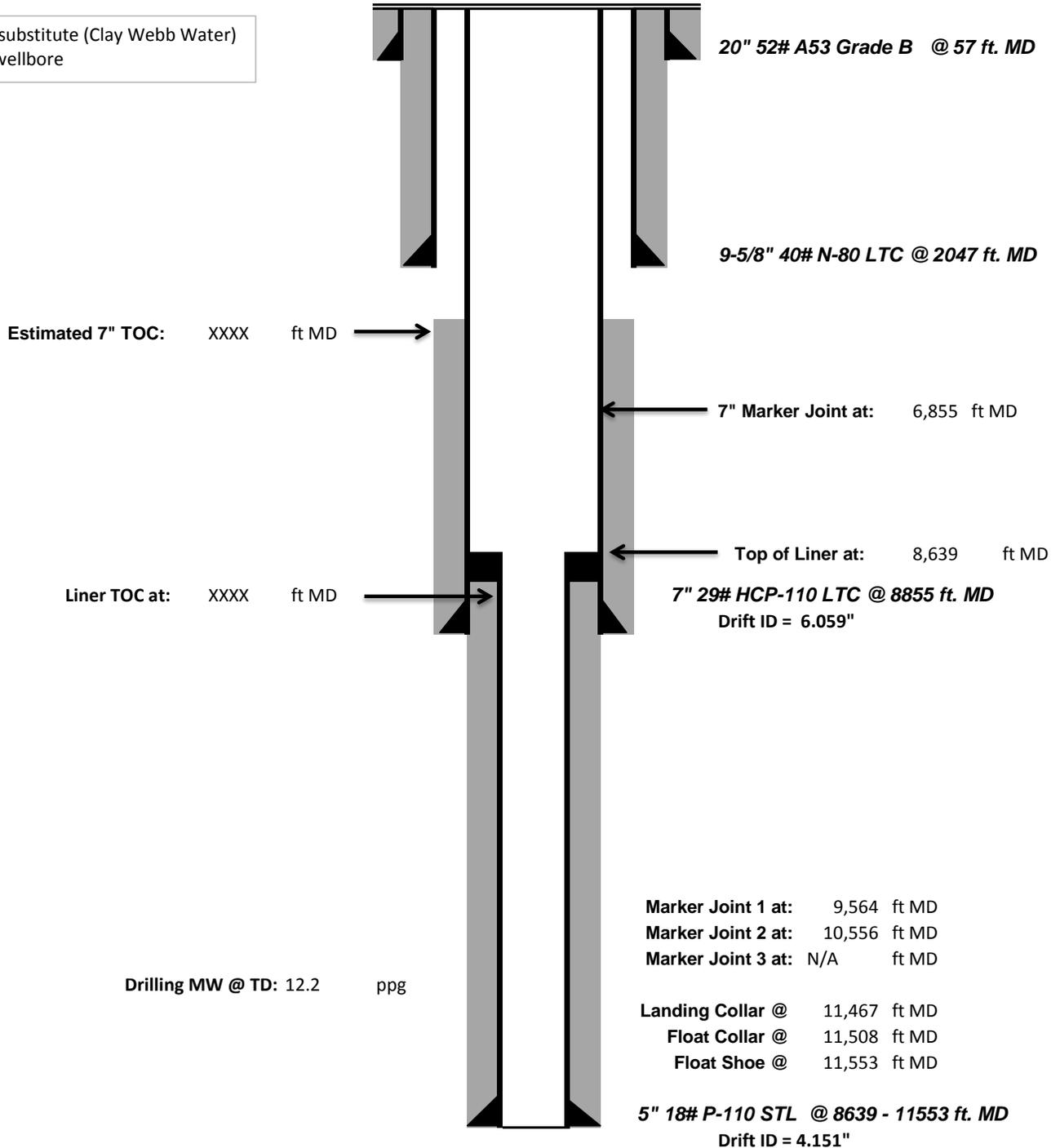


Pre-Completion Wellbore Schematic

Well Name: **Flying Dutchman 6-20C4**
 Company Name: **EP Energy**
 Field, County, State: **Altamont, Duchesne, Utah**
 Surface Location: **Lat: 40°12'40.21" N Long: 110°22'3.24" W**
 Producing Zone(s): **Wasatch**

Last Updated: **1/8/2015**
 By: **David Gregory**
 TD: **11,553**
 API: **4301353167**
 AFE: **163413**

8.43 ppg KCL substitute (Clay Webb Water) water in the wellbore



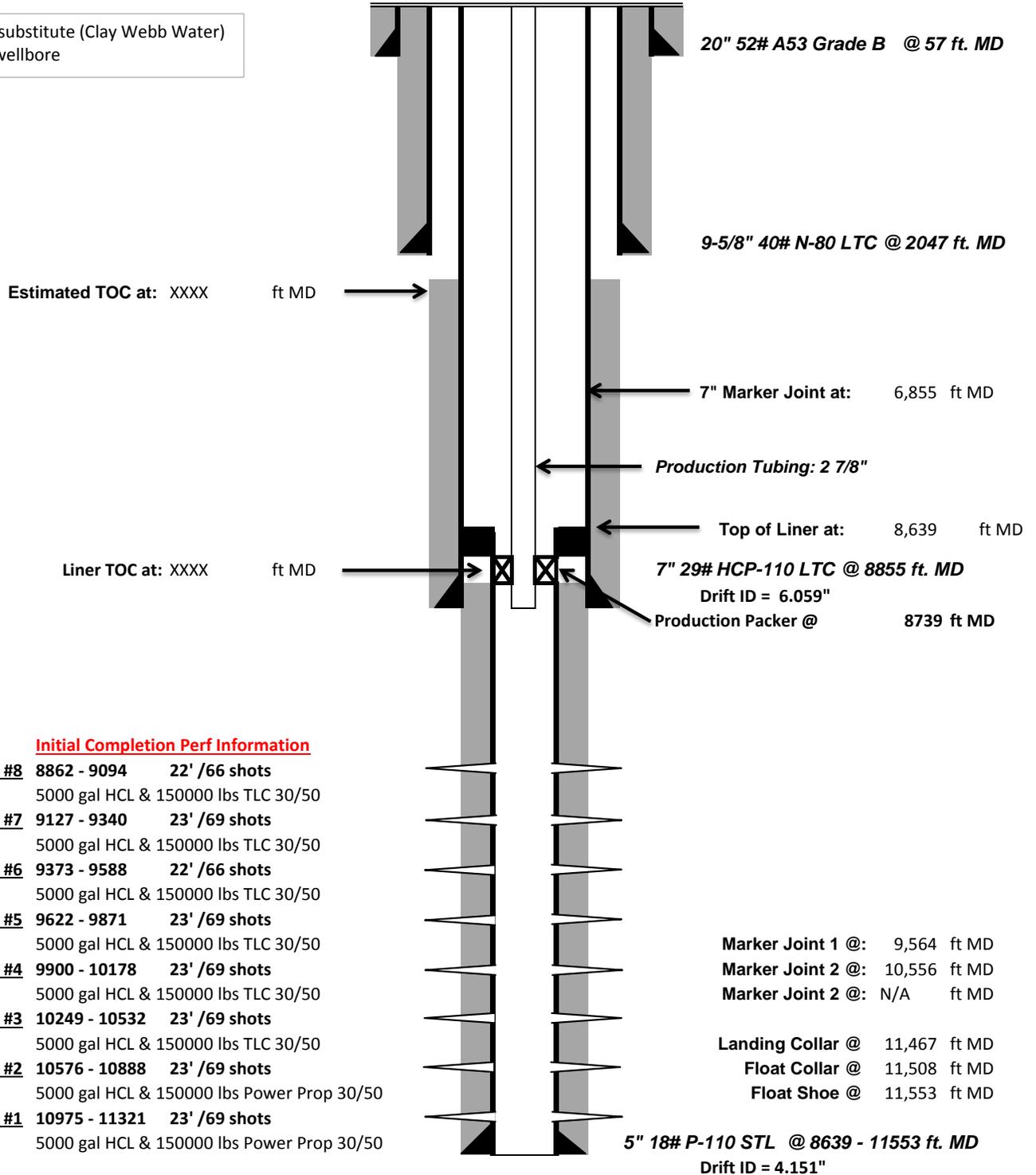


Post-Completion Wellbore Schematic

Well Name: **Flying Dutchman 6-20C4**
 Company Name: **EP Energy**
 Field, County, State: **Altamont, Duchesne, Utah**
 Surface Location: **Lat: 40°12'40.21" N Long: 110°22'3.24" W**
 Producing Zone(s): **Wasatch**

Last Updated: **1/5/2015**
 By: **David Gregory**
 TD: **11,553**
 API: **4301353167**
 AFE: **163413**

8.43 ppg KCL substitute (Clay Webb Water) water in the wellbore



Initial Completion Perf Information

Stage #	Depth Range (ft MD)	Shots	Fluids
Stage #8	8862 - 9094	22' /66 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #7	9127 - 9340	23' /69 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #6	9373 - 9588	22' /66 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #5	9622 - 9871	23' /69 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #4	9900 - 10178	23' /69 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #3	10249 - 10532	23' /69 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #2	10576 - 10888	23' /69 shots	5000 gal HCL & 150000 lbs Power Prop 30/50
Stage #1	10975 - 11321	23' /69 shots	5000 gal HCL & 150000 lbs Power Prop 30/50

CONFIDENTIAL

Carol Daniels <caroldaniels@utah.gov>

NW 1/4 S-20 T-03S R-04W FREE LEASE

24hr Notice Run & Cement Casing

1 message

LANDRIG009 (Precision 406) <LANDRIG009@epenergy.com>

Sun, Jan 4, 2015 at 9:07 PM

To: "alexishuefner@utah.gov" <alexishuefner@utah.gov>, "MacAfee, Bradley D" <Brad.MacAfee@epenergy.com>, "caroldaniels@utah.gov" <caroldaniels@utah.gov>, "dennisingram@utah.gov" <dennisingram@utah.gov>, "Dodd, Robert W" <Robert.Dodd@epenergy.com>, "Mangum, Danny R (Contractor)" <danny.mangum@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "Derden, Roy Lynn (Contractor)" <Roy.Derden@epenergy.com>

RE: EP ENERGY

FLYING DUTCHMAN 6-20C4

API # 43013531670000

ALTAMONT FIELD

DUCHESNE COUNTY

We plan on running and cementing 5" 18# P-110HC STL Production Liner to +/- 11,553' within 24hrs

Thanks,

Lloyd Rowell / Morgan Harden

EP Energy / PD 406

713-997-1220 (Rig)

435-823-1764 (Cell)

THIS E-MAIL AND ANY MATERIALS TRANSMITTED WITH IT MAY CONTAIN CONFIDENTIAL OR PROPRIETARY MATERIAL FOR THE SOLE USE OF THE INTENDED RECIPIENT. ANY REVIEW, USE, DISTRIBUTION OR DISCLOSURE BY OTHERS IS STRICTLY PROHIBITED. IF YOU ARE NOT THE INTENDED RECIPIENT, OR AUTHORIZED TO RECEIVE THE INFORMATION FROM THE RECIPIENT, PLEASE NOTIFY THE SENDER BY REPLY E-MAIL AND DELETE ALL COPIES OF THIS MESSAGE.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT FORM 8
(highlight changes)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG		5. LEASE DESIGNATION AND SERIAL NUMBER:
1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> OTHER _____		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
b. TYPE OF WORK: NEW WELL <input type="checkbox"/> HORIZ. LATS. <input type="checkbox"/> DEEP-EN <input type="checkbox"/> RE-ENTRY <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER _____		7. UNIT or CA AGREEMENT NAME
2. NAME OF OPERATOR:		8. WELL NAME and NUMBER:
3. ADDRESS OF OPERATOR: CITY _____ STATE _____ ZIP _____ PHONE NUMBER: _____		9. API NUMBER:
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: AT TOP PRODUCING INTERVAL REPORTED BELOW: AT TOTAL DEPTH:		10 FIELD AND POOL, OR WILDCAT
		11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
		12. COUNTY _____ 13. STATE UTAH

14. DATE SPUDDED:	15. DATE T.D. REACHED:	16. DATE COMPLETED: _____ ABANDONED <input type="checkbox"/> READY TO PRODUCE <input type="checkbox"/>	17. ELEVATIONS (DF, RKB, RT, GL):
18. TOTAL DEPTH: MD _____ TVD _____	19. PLUG BACK T.D.: MD _____ TVD _____	20. IF MULTIPLE COMPLETIONS, HOW MANY? *	21. DEPTH BRIDGE MD _____ PLUG SET: TVD _____
22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)		23. WAS WELL CORED? NO <input type="checkbox"/> YES <input type="checkbox"/> (Submit analysis) WAS DST RUN? NO <input type="checkbox"/> YES <input type="checkbox"/> (Submit report) DIRECTIONAL SURVEY? NO <input type="checkbox"/> YES <input type="checkbox"/> (Submit copy)	

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

26. PRODUCING INTERVALS					27. PERFORATION RECORD				
FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS	
(A)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(B)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC. See attached for further information on #27 & #28.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL

29. ENCLOSED ATTACHMENTS: All logs are submitted to UDOGM by vendor.	30. WELL STATUS:
<input type="checkbox"/> ELECTRICAL/MECHANICAL LOGS <input type="checkbox"/> GEOLOGIC REPORT <input type="checkbox"/> DST REPORT <input type="checkbox"/> DIRECTIONAL SURVEY <input type="checkbox"/> SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION <input type="checkbox"/> CORE ANALYSIS <input type="checkbox"/> OTHER: _____	

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)

35. ADDITIONAL REMARKS (Include plugging procedure)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) _____ TITLE _____
 SIGNATURE _____ DATE _____

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining Phone: 801-538-5340
 1594 West North Temple, Suite 1210
 Box 145801 Fax: 801-359-3940
 Salt Lake City, Utah 84114-5801

Attachment to Well Completion Report**Form 8 Dated February 27, 2015****Well Name: Flying Dutchman 6-20C4****Items #27 and #28 Continued****27. Perforation Record**

Interval (Top/Bottom – MD)	Size	No. of Holes	Perf. Status
9610'-9861'	.43	69	Open
9359'-9576'	.43	66	Open
9111'-9325'	.43	69	Open
8843'-9078'	.43	66	Open

28. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
9891'-10170'	5000 gal acid, 3000# 100 mesh, 150540# 30/50 TLC
9610'-9861'	5000 gal acid, 3000# 100 mesh, 150600# 30/50 TLC
9359'-9576'	5000 gal acid, 3000# 100 mesh, 150500# 30/50 TLC
9111'-9325'	5000 gal acid, 3000# 100 mesh, 148000# 30/50 TLC
8843'-9078'	5000 gal acid, 3340# 100 mesh, 147600# 30/50 TLC



Company: EP Energy Job Number: _____
 Well: Flying Dutchman 6-20C4 Mag Decl.: _____
 Location: Duchesne, UT Dir Driller: _____
 Rig: Precision 406 MWD Eng: _____

Calculation Method Minimum Curvature
 Proposed Azimuth 0.00
 Depth Reference KB
 Tie Into: Gyro/MWD

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')		
							N/S (ft)	E/W (ft)	Distance (ft)	Direction Azimuth					
Tie In	0.00	0.00	0.00												
1	100.00	0.31	21.20	100.00	100.00	0.25	0.25	N	0.10	E	0.27	21.20	0.31	21.20	
2	200.00	0.50	35.64	100.00	200.00	0.85	0.85	N	0.45	E	0.96	27.68	0.19	14.44	
3	300.00	0.47	43.45	100.00	299.99	1.50	1.50	N	0.98	E	1.79	33.17	-0.03	7.82	
4	400.00	0.19	67.18	100.00	399.99	1.86	1.86	N	1.42	E	2.34	37.27	-0.28	23.72	
5	500.00	0.36	298.76	100.00	499.99	2.08	2.08	N	1.29	E	2.45	31.93	0.50	231.58	
6	600.00	0.44	301.40	100.00	599.99	2.43	2.43	N	0.69	E	2.53	15.80	0.09	2.64	
7	700.00	0.82	313.61	100.00	699.98	3.12	3.12	N	0.16	W	3.13	357.10	0.39	0.37	12.22
8	800.00	0.59	7.37	100.00	799.98	4.13	4.13	N	0.61	W	4.17	351.63	0.67	-0.22	-306.25
9	900.00	0.32	20.45	100.00	899.97	4.90	4.90	N	0.44	W	4.92	354.83	0.29	-0.28	13.08
10	1000.00	0.16	8.74	100.00	999.97	5.31	5.31	N	0.32	W	5.32	356.50	0.16	-0.16	-11.71
11	1100.00	0.43	251.73	100.00	1099.97	5.33	5.33	N	0.66	W	5.37	352.92	0.53	0.27	242.99
12	1200.00	1.07	267.99	100.00	1199.96	5.18	5.18	N	1.96	W	5.54	339.31	0.67	0.64	16.26
13	1300.00	1.10	301.61	100.00	1299.94	5.65	5.65	N	3.71	W	6.76	326.70	0.63	0.03	33.63
14	1400.00	0.69	308.66	100.00	1399.93	6.53	6.53	N	5.00	W	8.23	322.55	0.43	-0.41	7.04
15	1500.00	0.86	285.88	100.00	1499.92	7.11	7.11	N	6.19	W	9.43	318.96	0.35	0.17	-22.78
16	1600.00	1.04	260.16	100.00	1599.91	7.16	7.16	N	7.80	W	10.59	312.56	0.46	0.18	-25.72
17	1700.00	1.39	253.46	100.00	1699.89	6.66	6.66	N	9.85	W	11.89	304.06	0.38	0.35	-6.70
18	1800.00	1.64	270.79	100.00	1799.85	6.34	6.34	N	12.44	W	13.96	296.99	0.52	0.25	17.33
19	1900.00	1.71	274.05	100.00	1899.81	6.46	6.46	N	15.36	W	16.66	292.82	0.12	0.08	3.26
20	1926.00	1.63	266.11	26.00	1925.80	6.46	6.46	N	16.11	W	17.36	291.86	0.95	-0.34	-30.53
21	2000.00	1.54	264.58	74.00	1999.77	6.30	6.30	N	18.15	W	19.21	289.14	0.13	-0.12	-2.08
22	2200.00	1.71	263.83	200.00	2199.69	5.73	5.73	N	23.78	W	24.46	283.54	0.08	0.08	-0.37
23	2400.00	5.78	259.27	200.00	2399.22	3.53	3.53	N	36.64	W	36.80	275.50	2.04	2.04	-2.28
24	2600.00	1.57	254.45	200.00	2598.77	0.92	0.92	N	49.17	W	49.18	271.07	2.10	-2.10	-2.41
25	2800.00	3.07	100.98	200.00	2798.69	-0.84	0.84	S	46.56	W	46.57	268.97	2.27	0.75	-76.74
26	3000.00	4.31	76.59	200.00	2998.28	-0.12	0.12	S	33.99	W	33.99	269.81	0.99	0.62	-12.20
27	3200.00	3.08	80.29	200.00	3197.86	2.54	2.54	N	21.38	W	21.53	276.76	0.63	-0.62	1.85
28	3400.00	2.17	92.08	200.00	3397.65	3.30	3.30	N	12.31	W	12.74	285.03	0.53	-0.46	5.89
29	3600.00	2.72	83.82	200.00	3597.47	3.68	3.68	N	3.82	W	5.30	313.93	0.33	0.28	-4.13
30	3800.00	3.39	72.81	200.00	3797.19	5.94	5.94	N	6.55	E	8.84	47.79	0.44	0.34	-5.50
31	4000.00	3.89	60.66	200.00	3996.79	11.01	11.01	N	18.11	E	21.20	58.70	0.46	0.25	-6.08
32	4200.00	3.13	68.47	200.00	4196.41	16.34	16.34	N	29.11	E	33.39	60.69	0.45	-0.38	3.90
33	4400.00	2.22	81.62	200.00	4396.19	18.91	18.91	N	38.02	E	42.47	63.55	0.55	-0.46	6.58
34	4600.00	2.86	87.70	200.00	4596.00	19.68	19.68	N	46.84	E	50.80	67.21	0.35	0.32	3.04
35	4800.00	3.10	94.35	200.00	4795.73	19.47	19.47	N	57.22	E	60.44	71.21	0.21	0.12	3.32



Company: EP Energy **Job Number:** _____
Well: Flying Dutchman 6-20C4 **Mag Decl.:** _____
Location: Duchesne, UT **Dir Driller:** _____
Rig: Precision 406 **MWD Eng:** _____

Calculation Method Minimum Curvature
Proposed Azimuth 0.00
Depth Reference KB
Tie Into: Gyro/MWD

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')		
							N/S (ft)	E/W (ft)	Distance (ft)	Direction Azimuth					
36	5000.00	2.96	94.22	200.00	4995.45	18.68	18.68	N	67.75	E	70.28	74.59	0.07	-0.07	-0.07
37	5200.00	2.42	97.09	200.00	5195.23	17.78	17.78	N	77.08	E	79.10	77.01	0.28	-0.27	1.43
38	5400.00	3.82	84.96	200.00	5394.93	17.84	17.84	N	87.89	E	89.68	78.53	0.77	0.70	-6.06
39	5600.00	3.86	75.61	200.00	5594.48	20.10	20.10	N	101.03	E	103.01	78.75	0.31	0.02	-4.68
40	5800.00	2.40	89.15	200.00	5794.18	21.83	21.83	N	111.74	E	113.85	78.94	0.81	-0.73	6.77
41	6000.00	1.26	115.18	200.00	5994.08	20.96	20.96	N	117.92	E	119.77	79.92	0.69	-0.57	13.02
42	6200.00	1.18	142.70	200.00	6194.03	18.38	18.38	N	121.17	E	122.55	81.38	0.29	-0.04	13.76
43	6400.00	1.47	160.26	200.00	6393.98	14.33	14.33	N	123.28	E	124.11	83.37	0.25	0.14	8.78
44	6600.00	1.68	179.88	200.00	6593.91	8.99	8.99	N	124.15	E	124.48	85.86	0.29	0.11	9.81
45	6800.00	0.68	232.43	200.00	6793.87	5.34	5.34	N	123.22	E	123.33	87.52	0.69	-0.50	26.27
46	7000.00	0.36	159.07	200.00	6993.86	4.03	4.03	N	122.50	E	122.56	88.12	0.34	-0.16	-36.68
47	7200.00	1.25	184.78	200.00	7193.84	1.27	1.27	N	122.54	E	122.54	89.41	0.47	0.45	12.86
48	7400.00	1.38	212.60	200.00	7393.79	-2.93	2.93	S	121.06	E	121.09	91.39	0.32	0.06	13.91
49	7600.00	1.78	216.85	200.00	7593.71	-7.44	7.44	S	117.90	E	118.14	93.61	0.21	0.20	2.13
50	7800.00	1.69	198.98	200.00	7793.62	-12.71	12.71	S	115.08	E	115.78	96.30	0.27	-0.05	-8.94
51	8000.00	2.49	197.04	200.00	7993.49	-19.64	19.64	S	112.86	E	114.55	99.87	0.40	0.40	-0.97
52	8200.00	2.76	215.05	200.00	8193.28	-27.73	27.73	S	108.82	E	112.29	104.30	0.43	0.14	9.01
53	8400.00	2.34	224.61	200.00	8393.08	-34.59	34.59	S	103.18	E	108.82	108.53	0.30	-0.21	4.78
54	8600.00	1.92	224.18	200.00	8592.95	-39.90	39.90	S	97.97	E	105.79	112.16	0.21	-0.21	-0.21
55	8800.00	1.18	241.91	200.00	8792.87	-43.27	43.27	S	93.83	E	103.32	114.76	0.44	-0.37	8.86
56	9000.00	1.64	200.39	200.00	8992.82	-46.92	46.92	S	91.02	E	102.40	117.27	0.54	0.23	-20.76
57	9200.00	2.11	177.08	200.00	9192.71	-53.27	53.27	S	90.21	E	104.77	120.56	0.44	0.24	-11.65
58	9400.00	3.28	184.82	200.00	9392.49	-62.65	62.65	S	89.92	E	109.59	124.87	0.61	0.59	3.87
59	9600.00	3.10	190.13	200.00	9592.18	-73.68	73.68	S	88.48	E	115.15	129.79	0.17	-0.09	2.66
60	9800.00	3.36	188.87	200.00	9791.86	-84.81	84.81	S	86.63	E	121.23	134.39	0.13	0.13	-0.63
61	10000.00	3.25	189.89	200.00	9991.53	-96.19	96.19	S	84.75	E	128.20	138.62	0.06	-0.06	0.51
62	10200.00	3.22	184.37	200.00	10191.21	-107.37	107.37	S	83.35	E	135.92	142.18	0.16	-0.02	-2.76
63	10400.00	2.94	188.31	200.00	10390.92	-118.05	118.05	S	82.18	E	143.83	145.16	0.17	-0.14	1.97
64	10600.00	2.88	184.91	200.00	10590.66	-128.14	128.14	S	81.01	E	151.60	147.70	0.09	-0.03	-1.70
65	10800.00	3.14	185.85	200.00	10790.38	-138.60	138.60	S	80.02	E	160.04	150.00	0.13	0.13	0.47
66	11000.00	2.89	184.55	200.00	10990.11	-149.08	149.08	S	79.06	E	168.75	152.06	0.13	-0.13	-0.65
67	11200.00	3.30	179.33	200.00	11189.82	-159.85	159.85	S	78.73	E	178.19	153.78	0.25	0.20	-2.61
68	11380.00	3.10	181.54	180.00	11369.53	-169.89	169.89	S	78.65	E	187.21	155.16	0.13	-0.11	1.23
69	11553.00	3.10	181.54	173.00	11542.28	-179.24	179.24	S	78.40	E	195.63	156.37	0.00	0.00	0.00

CENTRAL DIVISION

ALTAMONT FIELD
FLYING DUTCHMAN 6-20C4
FLYING DUTCHMAN 6-20C4
COMPLETION LAND

Operation Summary Report

Disclaimer: Although the information contained in this report is based on sound engineering practices, the copyright owner(s) does (do) not accept any responsibility whatsoever, in negligence or otherwise, for any loss or damage arising from the possession or use of the report whether in terms of correctness or otherwise. The application, therefore, by the user of this report or any part thereof, is solely at the user's own risk.

1 General**1.1 Customer Information**

Company	CENTRAL DIVISION
Representative	
Address	

1.2 Well Information

Well	FLYING DUTCHMAN 6-20C4		
Project	ALTAMONT FIELD	Site	FLYING DUTCHMAN 6-20C4
Rig Name/No.		Event	COMPLETION LAND
Start date	1/17/2015	End date	
Spud Date/Time	12/23/2014	UWI	FLYING DUTCHMAN 6-20C4
Active datum	KB @5,886.0ft (above Mean Sea Level)		
Afe No./Description	163413/52891 / FLYING DUTCHMAN 6-20C4		

2 Summary**2.1 Operation Summary**

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
1/17/2015	6:00 7:30	1.50	WOR	28		P		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON ROADING RIG. FILL OUT & REVIEW JSA
	7:30 12:30	5.00	WOR	01		P		MOVE RIG TO LOCATION. SPOT PIPE RACKS. UNLOAD TBG. NIPPLE UP BOP. TEST DEAD MEN. RU RIG
	12:30 17:30	5.00	WOR	24		P		TIH W/ 4-1/8" BIT, BIT SUB, 95 JTS 2-3/8"EUE TBG, X-OVER & 186 JTS 2-7/8"EUE TBGSDFN W/ PIPE RAMS SHUT & LOCKED, TIW VALVE & NIGHT CAP INSTALLED IN TBG & CSG VALVES SHUT W/ BULL PLUGS INSTALLED
1/18/2015	6:00 6:00	24.00	WOR	18		P		NO ACTIVITY TODAY. SHUT DOWN FOR WEEKEND
1/19/2015	6:00 6:00	24.00	WOR	18		P		SHUT DOWN FOR WEEKEND
1/20/2015	6:00 7:30	1.50	WOR	28		P		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON RIGGING UP POWER SWIVEL. FILL OUT & REVIEW JSA
	7:30 9:00	1.50	WOR	24		P		CONTINUE TIH PICKING UP 71 JTS 2-7/8"EUE TBG. TAG UP @ 11429'.
	9:00 14:00	5.00	WOR	18		P		RU POWER SWIVEL. & BREAK REVERSE CIRCULATION. CLEAN OUT FROM 11429' TO LANDING COLLAR @ 11473'. CIRCULATE HOLE CLEAN W/ 426 BBLS 2% KCL WTR. RD POWER SWIVEL
	14:00 17:30	3.50	WOR	24		P		TOOH LAYING DOWN 257 JTS 2-7/8"EUE TBG. SHUT WELL IN W/ PIPE RAMS CLOSED & LOCKED, TIW VALVE & NIGHT CAP INSTALLED & CSG VALVES CLOSED W/ BULL PLUGS & NEEDLE VALVES INSTALLED.
1/21/2015	6:00 7:30	1.50	WOR	28		P		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON LAYING DOWN TBG. FILL OUT & REVIEW JSA
	7:30 9:00	1.50	WOR	24		P		CONTINUE TOOH LAYING DOWN 1 JT 2-7/8"EUE TBG, 95 JTS 2-7/8"EUE TBG, BIT SUB & BIT
	9:00 12:00	3.00	RDMO	02		P		ND BOP. INSTALL NIGHT CAP ON FRAC VALVE. RD RIG & MOVE OFF LOCATION
	12:00 17:00	5.00	WLWORK	18		P		RU WIRELINE UNIT. RUN CBL LOG FROM 11458' TO 2000' W/ CMT TOP & 2500' WHILE HOLDING 4000 PSI ON CSG. RD WIRELINE UNIT. SHUT WELL IN W/ FRAC VALVE W/ NIGHT CAP INSTALLED & BOTH CSG VALVES CLOSED W/ BULL PLUGS & NEEDLE VALVES INSTALLED
1/23/2015	6:00 7:30	1.50	SITEPRE	28		P		TRAVEL TO LOC HOLD SAFETY MTG ON NU FRAC STACK WRITE & REVIEW JSA'S

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	7:30 15:00	7.50	STG01	16		P		0 PSI ON WELL, ND 10K FLANGE OFF OF 7" 10K FRAC VALVE, NU 5" 10K FRAC STACK, TEST CSG TO 9,000 PSI FOR 30 MIN, TEST FRAC STACK TO 10,000 PSI & CHART TEST, TESTED GOOD, SHUT 7" FRAC VALVE, CLOSE BOTH HCR VALVES, CLOSE & NIGHT CAP CROSS VALVES, CLOSE & NIGHT CAP CSG VALVES, LAY FLOW BACK LINES & MANIFOLD, RU WATER TRANSFER LINES, SDFN
1/24/2015	6:00 7:30	1.50	STG01	28		P		TRAVEL TO LOC, HOLD SAFETY MTG ON CRANE OPERATING, WRITE & REVIEW JSA'S
	7:30 10:30	3.00	STG01	21		P		RU CUTTERS W.L. RIH PERF STG 1 PERFS FROM 11321' TO 10972' USING 2-3/4" TITAN PERFECTA SDP 16 GRAM CHARGES 3 SPF @ 120 DEG PHASING, STARTING PRESSURE 1000 PSI ENDING PRESSURE 1000 PSI, ALL PERF CORRELATED TO RADIAL CEMENT BOND GAMMA RAY DATE 1/20/15, SHUT 7" 10K FRAC VALVE, 2 HCR VALVES NIGHT CAP TOP, CLOSE CROSS VALVES & NIGHT CAP, CLOSE CSG VALVES & NIGHT CAP, SDFN
1/25/2015	6:00 6:00	24.00	STG01	18		P		NO ACTIVITY
1/26/2015	6:00 6:00	24.00	SITEPRE	18		P		TRAAVEL TO LOC HOLD SAFETY MTG ON HEATING FRAC WATER, WRITE & REVIEW JSA'S, RU HOT OILERS, HEAT FRAC WATER
1/27/2015	6:00 7:30	1.50	SITEPRE	28		P		ROAD FRAC EQUIP TO LOCATION, HOLD SAFETY MTG ON R.U. FRAC EQUIP, WRITE & REVIEW JSA'S
	7:30 9:00	1.50	MIRU	01		P		MIRU WEATHERFORD FRAC EQUIPMENT
	9:00 10:30	1.50	STG01	35		P		TEST PUMP LINES TO 9266 PSI, OPEN WELL CSG PSI 361 PSI, BREAK DWN STG 1 PERFS @ 5076 PSI @ 10 BPM, STEP DWN RATE IN 4 STGS, ISIP 4274 PSI, 5 MIN 4166 PSI, 10 MIN 4130 PSI, F.G. .81, TREAT PERFS W/ 5000 GALS 15% ACID, 3000 LBS 100 MESH IN 1/2 PPG STG, 31,500 LBS POWER PROP 30/50 IN 1/2 LB & 1 LB IN SLICK WATER STGS & 118,500 LBS POWER PROP 30/50 IN 2 & 3 LB GELLED STGS, ISIP 4660 PSI, AVG RATE 76.7 BPM, MAX RATE 79.9 BPM, AVG PRESSURE 5497 PSI & MAX PRESSURE 7402 PSI, F.G. .83, 3727 BBLS TO RECOVER, CLOSE IN WELL & TURN OVER TO WIRE LINE
	10:30 12:00	1.50	STG02	21		P		FILL & TEST LUBRICATOR TO 5500 PSI, RIH & SET 5" CBP @ 10900'. PERFORATE STAGE 2 PERFORATIONS FROM 10885' TO 10570', USING 2-3/4" TITAN PERFECTA SDP GUNS, 16 GRAM CHARGES, 3 SPF, 120 DEGREE PHASING. STARTING PRESSURE 4300 PSI ENDING 4200 PSI, SHUT WELL IN & TURN OVER TO FRAC CREW.
	12:00 13:30	1.50	STG02	35		P		TEST PUMP LINES TO 9237 PSI, OPEN WELL CSG PSI 4309 PSI, BREAK DWN STG 2 PERFS @ 4578 PSI @ 8 BPM, STEP DWN RATE IN 4 STGS, ISIP 4338 PSI, 5 MIN 4312 PSI, 10 MIN 4302 PSI, F.G. .83, TREAT PERFS W/ 5000 GALS 15% ACID, 3000 LBS 100 MESH IN 1/2 PPG STG, 31,500 LBS POWER PROP 30/50 IN 1/2 LB & 1 LB IN SLICK WATER STGS & 118,500 LBS POWER PROP 30/50 IN 2 & 3 LB GELLED STGS, ISIP 4763 PSI, AVG RATE 74.7 BPM, MAX RATE 76.1 BPM, AVG PRESSURE 5426 PSI & MAX PRESSURE 7689 PSI, F.G. .87, 3673 BBLS TO RECOVER, CLOSE IN WELL & TURN OVER TO WIRE LINE
	13:30 14:30	1.00	STG03	21		P		FILL & TEST LUBRICATOR TO 5500 PSI, RIH & SET 5" CBP @ 10543'. PERFORATE STAGE 3 PERFORATIONS FROM 10528' TO 10242', USING 2-3/4" TITAN PERFECTA SDP GUNS, 16 GRAM CHARGES, 3 SPF, 120 DEGREE PHASING. STARTING PRESSURE 4300 PSI ENDING 4300 PSI, SHUT WELL IN & TURN OVER TO FRAC CREW.

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	14:30 16:00	1.50	STG03	35		P		TEST PUMP LINES TO 9202 PSI, OPEN WELL CSG PSI 4091 PSI, BREAK DWN STG 3 PERFS @ 4460 PSI @ 6 BPM, STEP DWN RATE IN 4 STGS, ISIP 4374 PSI, 5 MIN 4345 PSI, 10 MIN 4330 PSI, F.G. .85, TREAT PERFS W/ 5000 GALS 15% ACID, 3000 LBS 100 MESH IN 1/2 PPG STG, 31,500 LBS TLC 30/50 IN 1/2 LB & 1 LB IN SLICK WATER STGS & 118,500 LBS TLC 30/50 IN 2 & 3 LB GELLED STGS, ISIP 4456 PSI, AVG RATE 75.8 BPM, MAX RATE 77.3 BPM, AVG PRESSURE 5454 PSI & MAX PRESSURE 7306 PSI, F.G. .86, 3774 BBLs TO RECOVER, CLOSE IN WELL & TURN OVER TO WIRE LINE
	16:00 18:00	2.00	STG04	21		P		FILL & TEST LUBRICATOR TO 5500 PSI, RIH & SET 5" CBP @ 10185'. PERFORATE STAGE 4 PERFORATIONS FROM 10170' TO 9891', USING 2-3/4" TITAN PERFECTA SDP GUNS, 16 GRAM CHARGES, 3 SPF, 120 DEGREE PHASING. STARTING PRESSURE 4300 PSI ENDING 4300 PSI, POOH W/ W.L., SHUT IN 7" 10K FRAC VALVE, CLOSE & LOCK BOTH HCR VALVES, NIGHT CAP CROSS VALVES & CSG VALVES, CLOSE SURFACE CSG VALVES, GREASE FRAC STACK & SDFN
1/28/2015	6:00 6:30	0.50	STG04	28		P		TRAVEL TO LOC HOLD SAFETY MTG ON FRACING OPERATIONS WRITE & REVIEW JSA'S
	6:30 8:00	1.50	STG04	35		P		TEST PUMP LINES TO 9257 PSI, OPEN WELL CSG PSI 2789 PSI, BREAK DWN STG 4 PERFS @ 4642 PSI @ 10 BPM, STEP DWN RATE IN 4 STGS, ISIP 4052 PSI, 5 MIN 3447 PSI, 10 MIN 2736 PSI, 15 MIN 2557 PSI, F.G. .83, TREAT PERFS W/ 5000 GALS 15% ACID, 3000 LBS 100 MESH IN 1/2 PPG STG, 31,500 LBS TLC 30/50 IN 1/2 LB & 1 LB IN SLICK WATER STGS & 118,500 LBS TLC 30/50 IN 2 & 3 LB GELLED STGS, ISIP 4420 PSI, AVG RATE 75.4 BPM, MAX RATE 77 BPM, AVG PRESSURE 5377 PSI & MAX PRESSURE 6906 PSI, F.G. .87, 3685 BBLs TO RECOVER, CLOSE IN WELL & TURN OVER TO WIRE LINE
	8:00 9:00	1.00	STG05	21		P		TEST W.L. LUBRICATOR TO 4500 PSI, RIH & SET 5" CBP @ 9876'. PERFORATE STAGE 5 PERFORATIONS FROM 9861' TO 9610', USING 2-3/4" TITAN PERFECTA SDP GUNS, 16 GRAM CHARGES, 3 SPF, 120 DEGREE PHASING. STARTING PRESSURE 4000 PSI ENDING 3700 PSI, SHUT WELL IN & TURN OVER TO FRAC CREW.
	9:00 10:30	1.50	STG05	35		P		TEST PUMP LINES TO 9320 PSI, OPEN WELL CSG PSI 3473 PSI, BREAK DWN STG 5 PERFS @ 4224 PSI @ 9 BPM, STEP DWN RATE IN 4 STGS, ISIP 4160 PSI, 5 MIN 3669 PSI, 10 MIN 3579 PSI, F.G. .85, TREAT PERFS W/ 5000 GALS 15% ACID, 3000 LBS 100 MESH IN 1/2 PPG STG, 31,500 LBS TLC 30/50 IN 1/2 LB & 1 LB IN SLICK WATER STGS & 118,500 LBS TLC 30/50 IN 2 & 3 LB GELLED STGS, ISIP 4581 PSI, AVG RATE 75.3 BPM, MAX RATE 76.4 BPM, AVG PRESSURE 5157 PSI & MAX PRESSURE 6187 PSI, F.G. .90, 3690 BBLs TO RECOVER, CLOSE IN WELL & TURN OVER TO WIRE LINE
	10:30 11:30	1.00	STG06	21		P		TEST W.L. LUBRICATOR TO 4800 PSI, RIH & SET 5" CBP @ 9591'. PERFORATE STAGE 6 PERFORATIONS FROM 9576' TO 9359', USING 2-3/4" TITAN PERFECTA SDP GUNS, 16 GRAM CHARGES, 3 SPF, 120 DEGREE PHASING. STARTING PRESSURE 4000 PSI ENDING 3700 PSI, SHUT WELL IN & TURN OVER TO FRAC CREW.

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	11:30 13:00	1.50	STG06	35		P		TEST PUMP LINES TO 9300 PSI, OPEN WELL CSG PSI 3633 PSI, BREAK DWN STG 6 PERFS @ 4535 PSI @ 9.6 BPM, STEP DWN RATE IN 4 STGS, ISIP 3823 PSI, 5 MIN 3572 PSI, 10 MIN 3504 PSI, F.G. .83, TREAT PERFS W/ 5000 GALS 15% ACID, 3000 LBS 100 MESH IN 1/2 PPG STG, 31,500 LBS TLC 30/50 IN 1/2 LB & 1 LB IN SLICK WATER STGS & 118,500 LBS TLC 30/50 IN 2 & 3 LB GELLED STGS, ISIP 4002 PSI, AVG RATE 76.8 BPM, MAX RATE 78.3 BPM, AVG PRESSURE 5205 PSI & MAX PRESSURE 6781 PSI, F.G. .85, 3644 BBLs TO RECOVER, CLOSE IN WELL & TURN OVER TO WIRE LINE
	13:00 14:00	1.00	STG07	21		P		TEST W.L. LUBRICATOR TO 4500 PSI, RIH & SET 5" CBP @ 9338'. PERFORATE STAGE 7 PERFORATIONS FROM 9325' TO 9111', USING 2-3/4" TITAN PERFECTA SDP GUNS, 16 GRAM CHARGES, 3 SPF, 120 DEGREE PHASING. STARTING PRESSURE 3200 PSI ENDING 2900 PSI, SHUT WELL IN & TURN OVER TO FRAC CREW.
	14:00 15:30	1.50	STG07	35		P		TEST PUMP LINES TO 9220 PSI, OPEN WELL CSG PSI 2875 PSI, BREAK DWN STG 7 PERFS @ 3626 PSI @ 10 BPM, STEP DWN RATE IN 4 STGS, ISIP 3262 PSI, 5 MIN 2932 PSI, 10 MIN 2889 PSI, F.G. .78, TREAT PERFS W/ 5000 GALS 15% ACID, 3000 LBS 100 MESH IN 1/2 PPG STG, 31,500 LBS TLC 30/50 IN 1/2 LB & 1 LB IN SLICK WATER STGS & 118,500 LBS TLC 30/50 IN 2 & 3 LB GELLED STGS, ISIP 3930 PSI, AVG RATE 77.2 BPM, MAX RATE 78.5 BPM, AVG PRESSURE 4579 PSI & MAX PRESSURE 5464 PSI, F.G. .86, 3740 BBLs TO RECOVER, CLOSE IN WELL & TURN OVER TO WIRE LINE
	15:30 16:30	1.00	STG08	21		P		TEST W.L. LUBRICATOR TO 4500 PSI, RIH & SET 5" CBP @ 9090'. PERFORATE STAGE 8 PERFORATIONS FROM 9078' TO 8843', USING 2-3/4" TITAN PERFECTA SDP GUNS, 16 GRAM CHARGES, 3 SPF, 120 DEGREE PHASING. STARTING PRESSURE 3500 PSI ENDING 3200 PSI, SHUT WELL IN & TURN OVER TO FRAC CREW.
	16:30 17:30	1.00	STG08	35		P		TEST PUMP LINES TO 9387 PSI, OPEN WELL CSG PSI 3143 PSI, BREAK DWN STG 8 PERFS @ 3465 PSI @ 10 BPM, STEP DWN RATE IN 4 STGS, ISIP 3465 PSI, 5 MIN 3172 PSI, 10 MIN 3118 PSI, F.G. .82, TREAT PERFS W/ 5000 GALS 15% ACID, 3000 LBS 100 MESH IN 1/2 PPG STG, 31,500 LBS TLC 30/50 IN 1/2 LB & 1 LB IN SLICK WATER STGS & 118,500 LBS TLC 30/50 IN 2 & 3 LB GELLED STGS, ISIP 3458 PSI, AVG RATE 76 BPM, MAX RATE 77 BPM, AVG PRESSURE 4400 PSI & MAX PRESSURE 5446 PSI, F.G. .81, 3663 BBLs TO RECOVER, CLOSE IN 7" 10 K FRAC VALVE, BTM 5" HCR VALVE, TOP 5" HCR VALVE, INSTALL & CLOSE NIGHT CAP, CSG VALVES CLOSED W/ NIGHT CAPS & CROSS FLOW VALVES CLOSED W/ NIGHT CAPS, CLOSE BOTH VALVES ON SURFACE CSG
	17:30 18:30	1.00	RDMO	02		P		RIG DWN MOVE OFF LOCATION W/ WIRE LINE EQUIP, GREASE & SERVICE FRAC STACK VALVES, SDFN
1/29/2015	7:30 9:00	1.50	RDMO	28		P		TRAVEL TO LOC, HOLD SAFETY MTG ON RIGGING DWN FRAC CREW, WRITE & REVIEW JSA'S
	9:00 12:30	3.50	RDMO	02		P		RID DWN & MOVE OFF LOC W/ WEATHERFORD FRAC CREW
	12:30 16:30	4.00	MIRU	01		P		MOVE IN & PARTIALLY RU NABORS 2" COIL TBG UNIT, SDFN
1/30/2015	6:00 7:00	1.00	CTU	28		P		TRAVEL TO LOC HOLD SAFETY MTG ON C.T. OPERATIONS WRITE & REVIEW JSA'S
	7:00 9:00	2.00	CTU	18		P		CONT RU NABORS 2" COIL TBG UNIT, MU COIL CONNECTOR PULL & PRESSURE TEST, MU MTR ASSY W/ 4-1/8" JZ ROCK BIT, FUNCTION TEST MTR ASSY, NU CT BOP PRESSURE TEST STACK & FLOW BACK LINES TO 6500 PSI

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	9:00 20:00	11.00	CTU	39		P		OPEN WELL @ 2000 PSI, RIH W/ CT TO LINER TOP PUMPING 1/2 BPM RETURNING 1 BPM, CHANGE RATES @ LT TO PUMPING 3.5 BPM RETURNING 4.5 BPM, RIH DRILL OUT 5" CBP'S @ 9090', 9338', 9591', 9876', 10185', 10543' & 10900' & CLEAN OUT TO LANDING COLLAR @ 11466' CTM, CIRC 1 HR ON BTM & 1 HR @ LINER TOP, CONT POOH W/ CT, BREAK OUT & LAY DWN MTR ASSY, BLOW COIL TBG DRY, RIG DWN COIL TBG EQUIP
	20:00 6:00	10.00	FB	19		P		OPEN WELL UP @ 1950 PSI ON 12/64 CHOKE, FLOWING TO FLOW BACK TANK, TURN WELL OVER TO FLOW BACK CREW
1/31/2015	20:00 6:00	10.00	FB	19		P		WELL FLOWING TO FLOW BACK TANK @ 1825 PSI ON 12/64 CHOKE, 0 BBLS OIL, 0 MCF, FLOWED 328 BBLS WATER
2/1/2015	6:00 6:00	24.00	FB	19		P		HOLD SAFETY MTG ON TURNING WELL TO SALES, WRITE & REVIEW JSA'S, WELL FLOWING @ 1775 PSI, ON 12/64 CHOKE FLOWED 47 BBLS OIL, 748 BBLS WATER & 66 MCF
2/2/2015	6:00 6:00	24.00	FB	19		P		HOLD SAFETY MTG ON CLIMBING STAIR WAYS WRITE & REVIEW JSA'S, WELL FLOWING @ 1700 PSI ON 12/64 CHOKE FLOWED 216 BBLS OIL, 744 BBLS WATER & 271 MCF
2/3/2015	6:00 7:30	1.50	WLWORK	28		P		TRAVEL TO LOC, HOLD SAFETY MTG ON WIRE LINE OPERATIONS WRITE & REVIEW JSA'S
	7:30 10:30	3.00	WLWORK	20		P		MIRU CUTTERS W.L., RIH W/ 2-7/8" BULL PLUG, 4' X 2-7/8" EUE N-80 PERF PLUG, PUMP OUT PLUG NIPPLE W/ PLUG, 4' X 2-3/8" EUE N-80 TBG SUB & 5" ASX-1 PKR, SET PKR @ 8739', TOOH R.D. WIRE LINE
	10:30 14:00	3.50	WLWORK	16		P		BLOW DWN WELL TO PROD FACILITY RECOVERING 65 BBLS OIL, 80 BBLS WATER & 166 MCF, ND 5" HCR VALVES & CROSS LEAVING 7" 10K FRAC VALVE ON WELL HEAD, NU BOP, SPOT IN & RU PEAK 1500, RU WORK FLOOR & TBG TONGS
	14:00 14:00	0.00	WOR	24		P		PUMP 30 BBLS 2% KCL DWN CSG, TALLY PU & RIH W/ 5" ON-OFF TOOL, 5 JTS 2-3/8" EUE L-80 TBG, 2-7/8" X 2-3/8" EUE X OVER & 226 JTS 2-7/8" EUE L-80 TBG EOT @ 7560', SHUT & LOCK PIPE RAMS, CLOSE TIW VALVE & NIGHT CAP, CLOSE & NIGHT CAP CSG VALVES, SDFN
2/4/2015	6:00 7:30	1.50	WOR	28		P		CT HOLD SAFETY MTG ON PU TBG WRITE & REVIEW JSA'S
	7:30 9:00	1.50	WOR	24		P		0 PSI ON WELL, CONT PU 37 JTS 2-7/8" EUE L-80 TBG, LATCH ONTO PKR, J-OFF PKR, LD 2 JTS 2-7/8" TBG
	9:00 10:30	1.50	WOR	06		P		CIRC GAS & OIL OUT OF WELL BORE W/ 350 BBLS 2% KCL MIXED W/ PKR FLUID
	10:30 12:30	2.00	WOR	16		P		SPACE OUT TBG & RIH W/ 8' X 2-7/8" N-80 TBG SUB, 2' X 2-7/8" N-80 TBG SUB & 1 JT 2-7/8" EUE L-80 TBG, MU 6' SUB W/ TBG HANGER & B.P.V. INSTALLED, RIH LATCH ONTO PKR, TEMP LAND TBG ON HANGERM RD WORK FLOOR, NDBOP & 7" 10K FRAC VALVE, PULL B.P.V., UNLAND TBG & L.D. 6' SUB, INSTALL B.P.V. IN HANGER LAND TBG IN 13K TENSION, NUWH & TEST VOID TO 9500 PSI, PULL B.P.V. OUT THRU TREE, PLUMB FLOW LINES, TEST CSG TO 1000 PSI & FLOW LINES TO 4500 PSI GOOD TEST
	12:30 14:00	1.50	WOR	18		P		RIG DWN RIG, PUMP OUT PLUG IN PKR @ 3000 PSI, TURN WELL OVER TO FLOW BACK CREW W/ 1700 PSI ON 12/64 CHOKE, PU LOC
	14:00 16:00	2.00	WOR	18		P		ROAD RIG TO 4-21B4 SLIDE P.U. BACK, SPOT IN & RU RIG, SDFN
2/5/2015	6:00 6:00	24.00	FB	19		P		HOLD SAFETY MTG ON CLEANING CHOKE WRITE & REVIEW JSA'S, WELL FLOWING @ 1900 PSI ON 12/64 CHOKE FLOWED 215 BBLS OIL, 234 BBLS WATER & 168 MCF

2/6/2015

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	6:00 6:00	24.00	FB	19		P		HOLD SAFETY MTG ON SPILLS & LEAKS WRITE & REVIEW JSA'S WELL FLOWING @ 1700 PSI FLOWED 234 BBLS OIL, 338 BBLS WATER & 354 MCF
2/7/2015	6:00 6:00	24.00	FB	19		P		HOLD SAFETY MTG ON CHANGING CHOKE, WRITE & REVIEW JSA'S, WELL FLOWING @ 1520 PSI ON 14/64 CHOKE, FLOWED 428 BBLS OIL, 441 BBLS WATER & 380 MCF
2/8/2015	6:00 6:00	24.00	FB	19		P		HOLD SAFETY MTG ON CHECKING THE BURNER IN TREATER, WRITE & REVIEW JSA'S, WELL FLOWING @ 1440 PSI ON 14/64 CHOKE FLOWED 248 BBLS OIL, 419 BBLS WATER & 386 MCF

Table of Contents

1	General.....	1
1.1	Customer Information.....	1
1.2	Well Information.....	1
2	Summary.....	1
2.1	Operation Summary.....	1

CENTRAL DIVISION

ALTAMONT FIELD
FLYING DUTCHMAN 6-20C4
FLYING DUTCHMAN 6-20C4
DRILLING LAND

Operation Summary Report

Disclaimer: Although the information contained in this report is based on sound engineering practices, the copyright owner(s) does (do) not accept any responsibility whatsoever, in negligence or otherwise, for any loss or damage arising from the possession or use of the report whether in terms of correctness or otherwise. The application, therefore, by the user of this report or any part thereof, is solely at the user's own risk.

1 General**1.1 Customer Information**

Company	CENTRAL DIVISION
Representative	
Address	

1.2 Well Information

Well	FLYING DUTCHMAN 6-20C4		
Project	ALTAMONT FIELD	Site	FLYING DUTCHMAN 6-20C4
Rig Name/No.	PRECISION DRILLING/406	Event	DRILLING LAND
Start date	12/21/2014	End date	1/8/2015
Spud Date/Time	12/23/2014	UWI	FLYING DUTCHMAN 6-20C4
Active datum	KB @5,886.0ft (above Mean Sea Level)		
Afe No./Description	163413/52891 / FLYING DUTCHMAN 6-20C4		

2 Summary**2.1 Operation Summary**

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
12/10/2014	6:00 6:00	24.00	CASSURF	24		P	0.0	SET 57' 20" STRUCTURAL, SET MOUSE HOLE @ 80'. DRILLED 12 1/4" HOLE TO 2,047'. RAN & CMT 2,032' 9-5/8" 40# N-80 LT&C. FC @ 1,990', SHOE 2,032'. ADDED RKB CORRECTION FOR PD 406.
12/21/2014	6:00 6:00	24.00	MIRU	01		P	2,047.0	MOVE IN & RIG UP. 100% MOVED IN 60% RIGGED UP.
12/22/2014	6:00 6:00	24.00	MIRU	01		P	2,047.0	RIG UP. PREP & RAISE DERRICK. PU TDU. RU FLOOR. INSTALL SAVER SUB.
12/23/2014	6:00 7:00	1.00	MIRU	01		P	2,047.0	INSTALL GAS BUSTER LINES. PERFORM RIG INSPECTION. RIG ON RATE @ 07:00 HRS 12/22/14
	7:00 14:30	7.50	CASSURF	28		P	2,047.0	NU 11" 10M BOPE & INSTALL FLOW LINE.
	14:30 22:00	7.50	CASSURF	19		P	2,047.0	TESTED 11" 5M ANNULAR TO 250 / 2,500 PSI AND REMAINING BOPE, FLOOR VALVES, ETC TO 250 / 5,000 PSI. TESTED CHOKE MANIFOLD TO 250 / 10,000 PSI. HELD EACH TEST 10 MINUTES.
	22:00 22:30	0.50	CASSURF	42		P	2,047.0	INSTALL WEAR BUSHING
	22:30 23:30	1.00	CASSURF	31		P	2,047.0	TEST CASING TO 2,500 PSI FOR 30 MINUTES. TEST GOOD. INSTALL WEAR BUSHING.
	23:30 0:30	1.00	CASSURF	17		P	2,047.0	SLIP & CUT DRILL LINE.
	0:30 5:30	5.00	CASSURF	14		P	2,047.0	PU 8 3/4" BHA. TIH.
12/24/2014	5:30 6:00	0.50	DRLINT1	07		P	2,047.0	DRILL OUT FLOAT EQUIPMENT.
	6:00 7:30	1.50	CASSURF	14		P	2,047.0	PU 4 1/2" DP TO 1,990' TAG FC.
	7:30 8:30	1.00	CASSURF	32		P	2,047.0	DRILL OUT FE, SHOE TRACK & 10'.
	8:30 9:30	1.00	CASSURF	33		P	2,057.0	CBU & PERFORM FIT TO 15.4 EWM WITH 9.3 PPG MUD. LEAKED OFF TO 465 PSI, 13.7 EMW.
	9:30 12:30	3.00	DRLINT1	07		P	2,057.0	DRILLED 2,057' - 2,048'. HAD 1.57° INC 256.03° AZM FIRST SURVEY. SLIDE 15', BUILT 1.03° OPPOSITE OF SLIDE. SLIDE 25' BUILT 2.89° OPPOSITE OF SLIDE. SPUD WELL @ 09:30 HRS 12/23/14.
	12:30 23:30	11.00	DRLINT1	57		N	2,408.0	POOH, CHECKED ALL DIRECTIONAL BHA, NO ISSUES FOUND. CHANGE OUT DIRECTIONAL TOOLS & BIT. TIH.
	23:30 4:00	4.50	DRLINT1	07		P	2,408.0	DRILLED 2,408' - 2,762'.
4:00 4:30	0.50	DRLINT1	12		P	2,762.0	SERVICE RIG & TD.	
4:30 6:00	1.50	DRLINT1	07		P	2,762.0	DRILLED 2,762' - 2,858'.	

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
12/25/2014	6:00 12:30	6.50	DRLINT1	07		P	2,858.0	DRILLED F/ 2,858' T/ 3,724'.
	12:30 13:00	0.50	DRLINT1	12		P	3,724.0	SERVICED RIG & TD.
	13:00 2:00	13.00	DRLINT1	07		P	3,724.0	DRILLED F/ 3,724' T/ 4,878'.
	2:00 2:30	0.50	DRLINT1	12		P	4,878.0	SERVICED RIG & TD.
	2:30 6:00	3.50	DRLINT1	07		P	4,878.0	DRILLED F/ 4,878' T/ 5,200'.
12/26/2014	6:00 13:30	7.50	DRLINT1	07		P	5,200.0	DRILLED F/ 5,200' T/ 5,650'.
	13:30 14:00	0.50	DRLINT1	12		P	5,650.0	SERVICED RIG & TD.
	14:00 2:00	12.00	DRLINT1	07		P	5,650.0	DRILLED F/ 5,650' T/ 6,609'.
	2:00 2:30	0.50	DRLINT1	12		P	6,609.0	SERVICED RIG & TD.
	2:30 6:00	3.50	DRLINT1	07		P	6,609.0	DRILLED F/ 6,609' T/ 6,780'.
12/27/2014	6:00 14:30	8.50	DRLINT1	07		P	6,780.0	DRILLED F/ 6,780' T/ 7,282'.
	14:30 15:00	0.50	DRLINT1	12		P	7,282.0	SERVICED RIG & TD.
	15:00 3:00	12.00	DRLINT1	07		P	7,282.0	DRILLED F/ 7,282' T/ 7,764'.
	3:00 3:30	0.50	DRLINT1	12		P	7,764.0	SERVICED RIG & TD.
	3:30 6:00	2.50	DRLINT1	07		P	7,764.0	DRILLED F/ 7,764' T/ 7,870'.
12/28/2014	6:00 7:30	1.50	DRLINT1	52		P	7,870.0	LOST CIRC @ 7,870'. PULL 2 STDS DP & CIRC 10% LCM. GOT RETURNS BACK. TIH W/ 2 STDS. LOST ABOUT 170 BBL'S OF MUD.
	7:30 12:00	4.50	DRLINT1	07		P	7,870.0	DRILLED F/ 7,870' T/ 8,148'.
	12:00 12:30	0.50	DRLINT1	12		P	8,148.0	SERVICED RIG & TD.
	12:30 1:30	13.00	DRLINT1	07		P	8,148.0	DRILLED F/ 8,148' T/ 8,437'.
	1:30 2:00	0.50	DRLINT1	12		P	8,437.0	SERVICED RIG & TD.
	2:00 6:00	4.00	DRLINT1	07		P	8,437.0	DRILLED F/ 8,437' T/ 8,640'.
12/29/2014	6:00 13:30	7.50	DRLINT1	07		P	8,640.0	DRILLED F/ 8,640' T/ 8,860'. TD INTERMEDIATE SECTION 12/28/14 @ 1330 HRS.
	13:30 15:30	2.00	DRLINT1	15		P	8,860.0	C & C MUD. RAISE MW TO 10.4 VIS = 45. FLOW CK.
	15:30 16:00	0.50	DRLINT1	12		P	8,860.0	SERVICED RIG.
	16:00 0:30	8.50	DRLINT1	13		P	8,860.0	WIPER TRIP. BACK REAM F/6,762' T/ 6,188', F/ 6,061' T/ 5,965', F/ 5,832' T/ 5,740'. FLOW CHECKED @ 8,860', 5,000', 2,030'.
	0:30 2:00	1.50	DRLINT1	14		P	8,860.0	LD DIRECTIONAL TOOLS.
	2:00 2:30	0.50	DRLINT1	12		P	8,860.0	SERVICED RIG & CLEANED RIG FLOOR.
12/30/2014	2:30 6:00	3.50	DRLINT1	13		P	8,860.0	RR BIT #2 TIH.
	6:00 22:30	16.50	DRLINT1	13		P	8,860.0	WIPER TRIP. LOST RETURNS @ 3,.215'. TOH T/ 9 5/8" CASING SHOE. LOWERED MW F/ 10.4 PPG T/ 10.1 PPG. REGAINED CIRC. STAGED PIPE IN HOLE T/ 8,860'. CIRC BU EVERY 1,000'.
	22:30 4:00	5.50	DRLINT1	15		P	8,860.0	C&C MUD. STAGED PUMP RATE UP TO 255 GPM. BU GAS 3650 UNITS (PASON), 290 UNITS (LOGGER). NO GAINS OR LOSSES. CHECKED FLOW (NEG). RMW F/ 10.1 PPG T/ 10.3 PPG. REDUCED PUMPED RATE T/ 200 GPM. CHECKED FLOW (NEG). PUMPED SLUG.
	4:00 6:00	2.00	DRLINT1	14		P	8,860.0	LD DP.
12/31/2014	6:00 14:00	8.00	DRLINT1	14		P	8,860.0	LD DP & BHA. FLOW CK @ 5,000' & 2,000'.
	14:00 14:30	0.50	DRLINT1	13		P	8,860.0	PULL WEAR BUSHING.
	14:30 15:00	0.50	DRLINT1	12		P	8,860.0	SERVICE RIG & TD.
	15:00 19:30	4.50	EVLINT1	22		P	8,860.0	PJSM. RU HES LOGGING UNIT & RUN STANARD QUAD COMBO. WIRELINE TD @ 8,856'. RD HES LOGGING UNIT. REDUCED MW IN PITS F/ 10.3 PPG T/ 9.9 PPG.
	19:30 20:00	0.50	CASINT1	42		P	8,860.0	CLEANED RIG FLOOR TO RUN CSG. CHANGED OUT ELEVATORS.
	20:00 6:00	10.00	CASINT1	24		P	8,860.0	PJSM. RU FRANKS CSG CREW & TORQUE TURN. PU 7" 29# HCP-110 LTC INTERMEDIATE CSG. MU SHOE TRACK AND TEST. STAGE IN HOLE @ 75 FPM, CIRC BU EVERY 1000'.

1/1/2015

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	6:00 20:30	14.50	CASINT1	24		P	8,860.0	RAN 213 JTS 7" 20# HCP-110 LT&C CSG TO 8,855'. FLOAT COLLAR @ 8,813', MARKER JT @ 6,865'. CIRC BU EVERY 1,000'. 60 BBL LOSSES. TAG BOTTOM @ 8,860. PU LANDING JT.
	20:30 22:00	1.50	CASINT1	15		P	8,860.0	C&C MUD TO 10.1 PPG @ 5.0 - 5.5 BPM . MAX GAS 7,187 UNITS. NO FLARE, NO GAIN, 8/10 MC.
	22:00 2:00	4.00	CASINT1	25		P	8,860.0	M&P PUMPED 40 BBLs 11.5 PPG TUNED SPACER . 555 SXS (189 BBLs) EXTENDACHEM LEAD CMT @ 12.5 PPG, 1.91 YLD TAILED WITH 330 SXS (96.0 BBLs) OF EXPANDACHEM CMT @ 13 PPG, 1.64 YIELD. RELEASED TOP PLUG. DISPLACED WITH 327 BBLs OF 10.1 PPG MUD @ 5 - 5.5 BPM. BUMPED PLUG @ 01:09 HRS 01/01/15 WITH 1600 PSI. 1.75 BBL BLED BACK, FLOATS HELD. RD CEMENTERS. LOST 90 BBLs DURING CMT OPS PARTIAL RETURNS. EST TOC 1500'.
	2:00 4:30	2.50	CASINT1	27		P	8,860.0	LD LANDING JT. INSTALLED & TESTED PACK-OFF TO 5,000 PSI FOR 10MIN.
	4:30 6:00	1.50	CASINT1	42		P	8,860.0	CHANGED OUT SAVER SUB & PREPARED RIG FLOOR FOR 4" EQUIPMENT.
1/2/2015	6:00 14:30	8.50	CASINT1	19		P	8,860.0	RU TESTER. TESTED BOPE, FLOOR VALVES, ETC TO 250 / 10,000 PSI. TESTED ANNULAR TO 250 / 4,000 PSI. HELD EACH TEST 10 MIN.
	14:30 15:00	0.50	CASINT1	31		P	8,860.0	TEST CSG TO 2,500 PSI FOR 30 MIN.
	15:00 2:30	11.50	CASINT1	14		P	8,860.0	MU 4-3/4" BHA. TIH T/ 8,590' PICKING UP 4" XT 39 DP.
	2:30 4:00	1.50	CASINT1	17		P	8,860.0	SLIP & CUT DRILL LINE. CIRC 10.1 PPG OUT OF HOLE.
	4:00 4:30	0.50	CASINT1	19		P	8,860.0	PREFORMED CASING PRE FIT TEST.
1/3/2015	4:30 6:00	1.50	CASINT1	32		P	8,860.0	TIH. TAG CEMENT @ 8,800'. DRILL CEMENT AND FE.
	6:00 7:30	1.50	DRLPRD	07		P	8,860.0	DRILL F/ 8,860' T/ 8,870'.
	7:30 8:00	0.50	DRLPRD	15		P	8,870.0	C & C MUD F/ FIT TEST.
	8:00 8:30	0.50	DRLPRD	12		P	8,870.0	SERVICED RIG & TD.
	8:00 8:00	0.00	DRLPRD	33		P	8,870.0	PERFORM FIT T/ 15.4 EMW W/ 11.0 PPG MUD @ 2,029 PSI.
	8:30 18:00	9.50	DRLPRD	13		P	8,870.0	TRIP F/ PACKED HOLE ASSEMBLY BHA.
	18:00 3:30	9.50	DRLPRD	07		P	8,870.0	DRILLED F/ 8,870' T/ 9,678'.
1/4/2015	3:30 4:00	0.50	DRLPRD	12		P	9,678.0	SERVICED RIG & TD.
	4:00 6:00	2.00	DRLPRD	07		P	9,678.0	DRILLED F/ 9,678' T/ 9,772'.
	6:00 11:00	5.00	DRLPRD	07		P	9,772.0	DRILLED F/ 9,772' T/ 10,151'.
	11:00 11:30	0.50	DRLPRD	12		P	10,151.0	SERVICED RIG & TD.
	11:30 22:30	11.00	DRLPRD	07		P	10,151.0	DRILLED F/ 10,151' T/ 11,098'.
	22:30 23:00	0.50	DRLPRD	12		P	11,098.0	SERVICED RIG & TD.
	23:00 4:00	5.00	DRLPRD	07		P	11,098.0	DRILLED F/ 11,098' T/ 11,553'. TD @ 04:00 HRS 1-4-15.
1/5/2015	4:00 5:00	1.00	DRLPRD	15		P	11,553.0	C&C MUD. LOWER VIS F/ 48 SEC/QT T/ 42 SEC/QT. FLOW CHECK.
	5:00 6:00	1.00	DRLPRD	13		P	11,553.0	WIPER TRIP.
	6:00 9:00	3.00	DRLINT1	13		P	11,553.0	FINISH WIPER TRIP.
	9:00 12:30	3.50	DRLINT1	15		P	11,553.0	C & C MUD. RAISE MW TO 12.5 PPG. BU GAS = 994 UNITS. FLOW CK. PUMP SLUG.
1/5/2015	12:30 20:00	7.50	DRLINT1	13		P	11,553.0	POOH TO LOG W/ HALLIBURTON. FLOW CKS @ 8,855', 4,947', 700". PULL ROTATING RUBBER, LD STAB'S, PONY COLLAR, TELEDRIFF & BIT.
	20:00 20:30	0.50	DRLINT1	42		P	11,553.0	CLEANED RIG FLOOR F/ LOGGING OPERATIONS.
	20:30 2:30	6.00	EVLPRD	22		P	11,553.0	PJSM. RU HES LOGGING UNIT. RUN ULTA SLIM QUAD COMBO TOOL. WIRELINE TD @ 11,544'. LOG BACK T/ 7" CSG SHOE (8,855'). RD HES LOGGING UNIT. LOWERED MW IN ACTIVE F/ 12.5 PPG T/ 12.2 PPG 40 VIS.

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	2:30 6:00	3.50	CASPRD1	24		P	11,553.0	PJSM. RU CASING CREW & TORQUE TURN. MAKE UP & TEST SHOE TRACK. BEGIN RUNNING 5" STL HCP- 110 PRODUCTION LINER IN HOLE. BREAK CIRC @ 1,400'.
1/6/2015	6:00 8:00	2.00	CASPRD1	24		P	11,553.0	PJSM. RU & RAN 70 JTS 5" 18# P-110HC STL LINER. 2 MARKER JTS. MADE UP VERSAFLEX LINER HANGER ASSEMBLY & SETTING TOOL.
	8:00 9:00	1.00	CASPRD1	15		P	11,553.0	INSTALLED RH ELEMENT. CIRC LINER VOLUME @ 2.5 BPM. RD CSG CREW.
	9:00 23:00	14.00	CASPRD1	24		P	11,553.0	TIH @ 70 FPM WITH 5" LINER ON 4" DP. BREAK CIRC EVERY 1,000'. CIRC BU EVERY 2000'. TAG BTM WITH 15K. NO LOSSES. SPACED OUT & RU CMT HEAD.
	23:00 2:00	3.00	CASPRD1	15		P	11,553.0	CBU X 2 @ 2.5 BPM. MAX GAS 4100 UNITS (PASON). NO FLARE. NO LOSSES. MW IN 12.2 PPG / OUT 12.2. FINAL CIRC PRESSURE 557 PSI @ 2.5 BPM. HELD SAFETY MEETING ON CEMENT OPERATIONS.
	2:00 3:00	1.00	CASPRD1	25		P	11,553.0	RU HES & TESTED LINES TO 8,500 PSI. PUMPED 20 BBLS 12.4 PPG TUNED SPACER & 210 SKS (57 BBLS) 14.2 PPG WITH 1.52 YIELD EXPANDACEM CMT. WASHED LINES. DROPPED DP DART. PUMPED 60 BBLS H2O WITH 2% KCL 0.1 % BIOCID, 138 BBLS 12.2 PPG MUD. BUMPED PLUG WITH 2745 PSI @ 0330 HRS 01/06/15. CHECKED FLOATS, FLOATS HELD, 1.5 BBLS BLED BACK. EST TOP OF CEMENT @ 8,639
	3:00 3:30	0.50	CASPRD1	25		P	11,553.0	RELEASED BALL, RUPTURE DISC @ 5,300 PSI. PUMPED 36 BBLS, PRESSURED TO 6600 PSI, EXPANDED HANGER. PULL TESTED LINER WITH 60K OVERPULL. SAT DOWN 70K , RELEASED SETTING TOOL FROM LINER HANGER. LANDED FS @ 11,553', FC @ 11,507', LC @ 11,466'. TOL @ 8,639'. 214' OF LAP. TOTAL LINER 2,913'. MARKER JT TOPS @ 10,555' & 9,563'.
	3:30 5:00	1.50	CASPRD1	15		P	11,553.0	PULLED UP TO TOL. OBSERVED 3 OVERPULLS OF 5K THROUGH CLAD SECTION. CIRC 2 TIMES ANNULAR VOLUME. 20 BBLS WEIGHTED SPACER & 5 BBLS WEIGHTED CEMENT TO SURFACE. 1,000 HELD 10 MINS.
	5:00 6:00	1.00	CASPRD1	15		P	11,553.0	DISPLACING WITH 2% KCL 0.1 % BIOCID.
1/7/2015	6:00 9:00	3.00	CASPRD1	15		P	11,553.0	DISPLACE HOLE W/ 2% CLAY WEB & BIOCID. RD HALLIBURTON & CEMENT HEAD.
	9:00 16:30	7.50	CASPRD1	14		P	11,553.0	L/D DP & LINER HANGER TOOL.
	16:30 17:30	1.00	CASPRD1	13		P	11,553.0	TIH W/ DP & DC'S IN DERRICK.
	17:30 21:00	3.50	CASPRD1	14		P	11,553.0	L/D DP & BHA.
	21:00 4:00	7.00	CASPRD1	29		P	11,553.0	ND FLOW LINE, KILL LINE, CHOKE LINE, ROTATING HEAD, & BOPE.
	4:00 5:00	1.00	CASPRD1	27		P	11,553.0	INSTALLED FRAC VALVE & TUBING HEAD 7 1/16. TEST 5,000 PSI . RIG RELEASED @ 05:00 HRS 1/7/15.
	5:00 6:00	1.00	RDMO	02		P	11,553.0	RIG DOWN.
1/8/2015	6:00 6:00	24.00	RDMO	02		P	11,553.0	PJSM. RD & PREP RIG FOR MOVE TO THE EP ENERGY 8-20C4. 100% RIGGED DOWN.

Table of Contents

1	General.....	1
1.1	Customer Information.....	1
1.2	Well Information.....	1
2	Summary.....	1
2.1	Operation Summary.....	1

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: Fee
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
		7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Oil Well	8. WELL NAME and NUMBER: Flying Dutchman 6-20C4	
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY, L.P.	9. API NUMBER: 43013531670000	
3. ADDRESS OF OPERATOR: 1001 Louisiana , Houston, TX, 77002	PHONE NUMBER: 713 997-5038 Ext	9. FIELD and POOL or WILDCAT: ALTAMONT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0700 FNL 0700 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 20 Township: 03.0S Range: 04.0W Meridian: U	COUNTY: DUCHESNE	
	STATE: UTAH	
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 9/15/2015 <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input checked="" type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> OTHER	
<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
Upgraded tubing. See attached for details.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY November 12, 2015		
NAME (PLEASE PRINT) Maria S. Gomez	PHONE NUMBER 713 997-5038	TITLE Principal Regulatory Analyst
SIGNATURE N/A	DATE 11/10/2015	

CENTRAL DIVISION

ALTAMONT FIELD
FLYING DUTCHMAN 6-20C4
FLYING DUTCHMAN 6-20C4
WORKOVER LAND

Operation Summary Report

Disclaimer: Although the information contained in this report is based on sound engineering practices, the copyright owner(s) does (do) not accept any responsibility whatsoever, in negligence or otherwise, for any loss or damage arising from the possession or use of the report whether in terms of correctness or otherwise. The application, therefore, by the user of this report or any part thereof, is solely at the user's own risk.

1 General**1.1 Customer Information**

Company	CENTRAL DIVISION
Representative	
Address	

1.2 Well Information

Well	FLYING DUTCHMAN 6-20C4		
Project	ALTAMONT FIELD	Site	FLYING DUTCHMAN 6-20C4
Rig Name/No.	COROD RIG/X	Event	WORKOVER LAND
Start date	9/9/2015	End date	9/16/2015
Spud Date/Time	12/23/2014	UWI	FLYING DUTCHMAN 6-20C4
Active datum	KB @5,886.0ft (above Mean Sea Level)		
Afe No./Description	PENDING-9/9/2015 /		

2 Summary**2.1 Operation Summary**

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
9/10/2015	7:00 9:45	2.75	PRDHEQ	18		P		ROAD COROD RIG FROM YARD TO 6-20C4, WRITE & REVIEW JSA, MIRU RIG & HOTOILER, PUMP 60 BBLS 2% KCL DOWN CSG, BLED OFF TBG.
	9:45 11:30	1.75	PRDHEQ	42		P		L/D POLISH ROD & SUBS, POOH W/ PARTED # 5 COROD @ 4,230', WEAR & CORROSION AT PART, WEAR STARTED @ 3,400', WELD ON 1" PIN TO COROD FOR FISHING TOOL.
	11:30 13:30	2.00	PRDHEQ	42		P		RIH W/ FISHING TOOL, 1,617' # 5, 1,008' # 6, 842' # 7, 763' # 8 COROD, P/U 3-1" RODS, FISH COROD.
	13:30 18:00	4.50	PRDHEQ	42		P		WORK COROD JARRING ON PUMP, HOT OILER PUMPING HOT 2% KCL DOWN CSG, NO LUCK UNSEATING PUMP, PULL OVER ON PUMP FOR NIGHT., SECURE WELL, SDFD.
9/11/2015	6:00 7:00	1.00	PRDHEQ	46		P		CREW TRAVEL HSM WRITE & REVIEW JSA (TOPIC) PINCH POINTS
	7:00 10:30	3.50	PRDHEQ	42		P		SHEER TOOL PARTED OVERNIGHT, L/D 2-1" RODS, POOH W/ 763' # 8, 842' # 7, 1008' # 6, 1617' # 5, CUT OUT FISHING TOOL, CONTINUE POOH W/ 3030' # 5, 1150 # 6, ON/OFF TOOL, STABILIZER SUB PARTED SHEER TOOL.
	10:30 12:30	2.00	ELINE	21		P		R/U PERFORATORS, RIH PERFORATE TBG @ 8448' - 8449' W/ 4 SHOTS, POOH, R/D WIRELINE TRUCK
	12:30 13:30	1.00	PRDHEQ	18		P		RDMO COROD RIG, FLUSH TBG W/ 60 BBLS HOT 2% KCL, SECURE WELL, SDFD.
9/12/2015	6:00 7:00	1.00	PRDHEQ	46		P		CREW TRAVEL HSM WRITE & REVIEW JSA (TOPIC) LAY DOWN TUBING
	7:00 8:30	1.50	PRDHEQ	18		P		ROAD RIG FROM 1-8B4 TO 6-20C4, MIRU W/O RIG
	8:30 10:00	1.50	PRDHEQ	18		P		N/D B-FLANGE, N/U 10K X 5K SPOOL & 5K BOPS, R/U WORK FLOOR & TONGS, RELEASE 7" TAC
	10:00 18:00	8.00	PRDHEQ	18		P		R/U SCANNERS, POOH SCANNING TBG W/ 256 JTS 2 7/8", 7" TAC, 4 JTS 2 7/8", R/D SCANNERS, L/D & CLEAN BHA SCANNED 255 JTS HAD 226 YELLOW & 29 BLUE
	18:00 19:30	1.50	PRDHEQ	34		P		R/U HYDRO TESTER, RIH W/ 5 3/4" NO/GO, SN TESTING 45 JTS 2 7/8" YELLOW BAND TBG, PULL TESTER TOOLS, SECURE WELL, SDFW, EOT @ 1475'
9/13/2015	6:00 6:00	24.00	PRDHEQ	18		P		NO ACTIVITY, SHUT DOWN FOR WEEKEND
9/14/2015	6:00 6:00	24.00	PRDHEQ	18		P		NO ACTIVITY, SHUT DOWN FOR WEEKEND

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
9/15/2015	6:00 7:00	1.00	PRDHEQ	46		P		CREW TRAVEL HSM WRITE & REVIEW JSA (TOPIC) HYDRO TESTING TUBING
	7:00 8:00	1.00	PRDHEQ	18		P		BLOW DOWN WELL, POOH W/ 44 JTS 2 7/8", PSN & 5 3/4" NO/GO
	8:00 16:00	8.00	PRDHEQ	34		P		P/U BHA, RIH W/ 5 3/4" SOLID NO/GO, 2 JTS 2 7/8", 5 1/2" PBGA, 2' X 2 7/8" SUB, PSN, 4' X 2 7/8" SUB, R/U HYDRO TESTER, RIH TESTING TO 8500 PSI W/ 4 JTS 2 7/8", 7" 1/4 TURN TAC (KLX), 111 JTS 2 7/8" YELLOW BAND, X-O TO 3 1/2", P/U 45 JTS NEW LINED 3 1/2" TBG, X-O TO 2 7/8", CONTINUE RIH TESTING 98 JTS 2 7/8" YELLOW BAND, R/D TESTER,
	16:00 17:00	1.00	PRDHEQ	18		P		SET 7" 1/4 TAC IN 18,000 LBS TENSION, R/D WORK FLOOR, N/D 5K BOPS & 10K SPOOL, N/U B-FLANGE W/ 60' CAP STRING,
	17:00 18:00	1.00	PMPNG	10		P		RDMO W/O RIG, R/U HOT OILER TO 7" CSG, PUMP 2 BBLS, FLUSH, MAIN PILL 50 GALS BRINE, 5 GALS XC105, 1/2 GAL WCW7745 AND FLUSH W/ 2 BBLS 2% KCL, SECURE WELL, SDFD.
	9/16/2015	6:30 8:00	1.50	PRDHEQ	18		P	
8:00 17:00		9.00	PRDHEQ	42		P		RIH W/ 2 1/2" X 1 3/4" X 38' HVF PUMP, ON/OFF TOOL, STABILIZER SUB, 1150' SE 6, 4642' SE 5, POOH CUTTING OUT 3000' OF BAD SE 5 COROD, WELD ON NEW SE 5, RIH W/ 3000' SE 5, WELD TO OLD SE 5, CONTINUE RIH W/ 377' SE 5, 1008' SE 6, 842' SE 7, 763' SE 8, SPACE OUT COROD TO LONG, CUT OFF 38' WELD ON PIN, P/U 2-2', 4', 6', 8' PONY SUBS & POLISH ROD, SEAT PUMP @ 8482'
17:00 17:30		0.50	PMPNG	34		P		FILL TBG W/ 15 BBLS 2% KCL, STROKE TEST PUMP TO 1000 PSI, GOOD TEST, FLUSH FLOW LINE W/ 30 BBLS HOT 2%
17:30 18:30		1.00	PRDHEQ	18		P		RDMO COROD RIG, SLIDE IN ROTA FLEX, HANG OFF RODS, START ROTA FLEX, TWOTO.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	5. LEASE DESIGNATION AND SERIAL NUMBER: Fee
	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Oil Well	8. WELL NAME and NUMBER: Flying Dutchman 6-20C4
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY, L.P.	9. API NUMBER: 43013531670000
3. ADDRESS OF OPERATOR: 1001 Louisiana , Houston, TX, 77002	PHONE NUMBER: 713 997-5138 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0700 FNL 0700 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 20 Township: 03.0S Range: 04.0W Meridian: U	9. FIELD and POOL or WILDCAT: ALTAMONT
	COUNTY: DUCHESNE
	STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 10/14/2016	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.
 Please find attached the proposed recompletion procedure along with current and post WBD's.

Approved by the
 September 19, 2016
 Oil, Gas and Mining

Date: _____

By: *D. K. Quist*

NAME (PLEASE PRINT) Linda Renken	PHONE NUMBER 713 997-5138	TITLE Sr. Regulatory Analyst
SIGNATURE N/A	DATE 9/15/2016	

Flying Dutchman 6-20 C4 - Recom Summary Procedure

- POOH with co-rod, pump & tubing. Inspect/Repair/Re-furbish as needed. Replace any bad tubing and joints of rods.
- Set 15k CBP for 5" 18# casing @ 8,835' w/ 15' cement dump bailed on plug. Test casing to frac pressure.
- Stage 1:
 - Perforate new CP 70 interval from **8,622' - 8,805'**.
 - Acid Frac Perforations with **19,000** gals 15% HCl acid (Stage 1 Recom).
- Stage 2:
 - RIH with 7" CBP & set @ **8,340'**.
 - Perforate new LGR interval from **8,190' - 8,325'**.
 - Acid Frac Perforations with **15,000** gals 15% HCl acid (Stage 2 Recom).
- Stage 3:
 - RIH with 7" CBP & set @ **7,953'**.
 - Perforate new LGR interval from **7,725' - 7,938'**.
 - Acid Frac Perforations with **21,000** gals 15% HCl acid (Stage 3 Recom).
- Clean out well drilling up (2) 7" CBPs at 7,953' and 8,340', leaving cement and 5" 15k CBP @ 8,830' w/ 15' CMT. Top perf BELOW plugs @ 8,843'.
- RIH w/ production tubing and rods.
- Clean location and resume production.



Current Pumping Wellbore Schematic

Well Name: **Flying Dutchman 6-20C4**
 Company Name: **EP Energy**
 Field, County, State: **Altamont, Duchesne, Utah**
 Surface Location: **Lat: 40°12'40.21" N Long: 110°22'3.24" W**
 Producing Zone(s): **Wasatch**

Last Updated: **9/17/2015**
 By: **Tomova**
 TD: **11,553**
 API: **4301353167**
 AFE: **163413**

8.43 ppg KCL substitute (Clay Webb Water) in the wellbore

98 jts 2-7/8" 6.5# L-80 8rd Tubing
45 jts 3-1/2" 9.30# L-80 8RND EUE R2 New Pipe lined with Ultratube™
111 jts 2-7/8" 6.5# L-80 8rd Tubing

20" 52# A53 Grade B @ 57 ft. MD

9-5/8" 40# N-80 LTC @ 2047 ft. MD

Actual TOC at: 2400 ft MD

Rod Detail @ 4.3 SPM
1-1/2" x 40' Polished Rod
725' - 18/16" CoRod
842' - 17/16" CoRod
1,008' - 16/16" CoRod
4,647' - 15/16" CoRod
1,150' - 16/16" CoRod
2-1/2" x 1-3/4" x 38' Insert Pump

1/4 Turn Tubing Anchor @ 8,347'
4 jts 2-7/8" 6.5# N-80 8rd Tubing
Seating Nipple @ 8,482'
2' x 2 7/8" Tubing Sub
5 1/2" x 32' PBGA
2 jts 2-7/8" Mud Anchor
5 3/4" No-Go Nipple
EOT @ 8,584'

Liner TOC at: 8646 ft MD

Top of Liner at: 8,622 ft MD

7" 29# HCP-110 LTC @ 8855 ft. MD
 Drift ID = 6.059"

Production Packer @ 8722 ft MD

Initial Completion Perf Information

Stage #8	8843 - 9078	22' /66 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #7	9111 - 9325	23' /69 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #6	9359 - 9576	22' /66 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #5	9610 - 9861	23' /69 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #4	9891 - 10170	23' /69 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #3	10242 - 10528	23' /69 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #2	10570 - 10885	23' /69 shots	5000 gal HCL & 150000 lbs Power Prop 30/50
Stage #1	10972 - 11321	23' /69 shots	5000 gal HCL & 150000 lbs Power Prop 30/50

Marker Joint 1 @: 9,549 ft MD
Marker Joint 2 @: 10,548 ft MD
Marker Joint 2 @: N/A ft MD

Landing Collar @ 11,467 ft MD
Float Collar @ 11,508 ft MD
Float Shoe @ 11,553 ft MD

PBTD 11,466'
5" 18# P-110 STL @ 8622 - 11553 ft. MD
 Drift ID = 4.151"

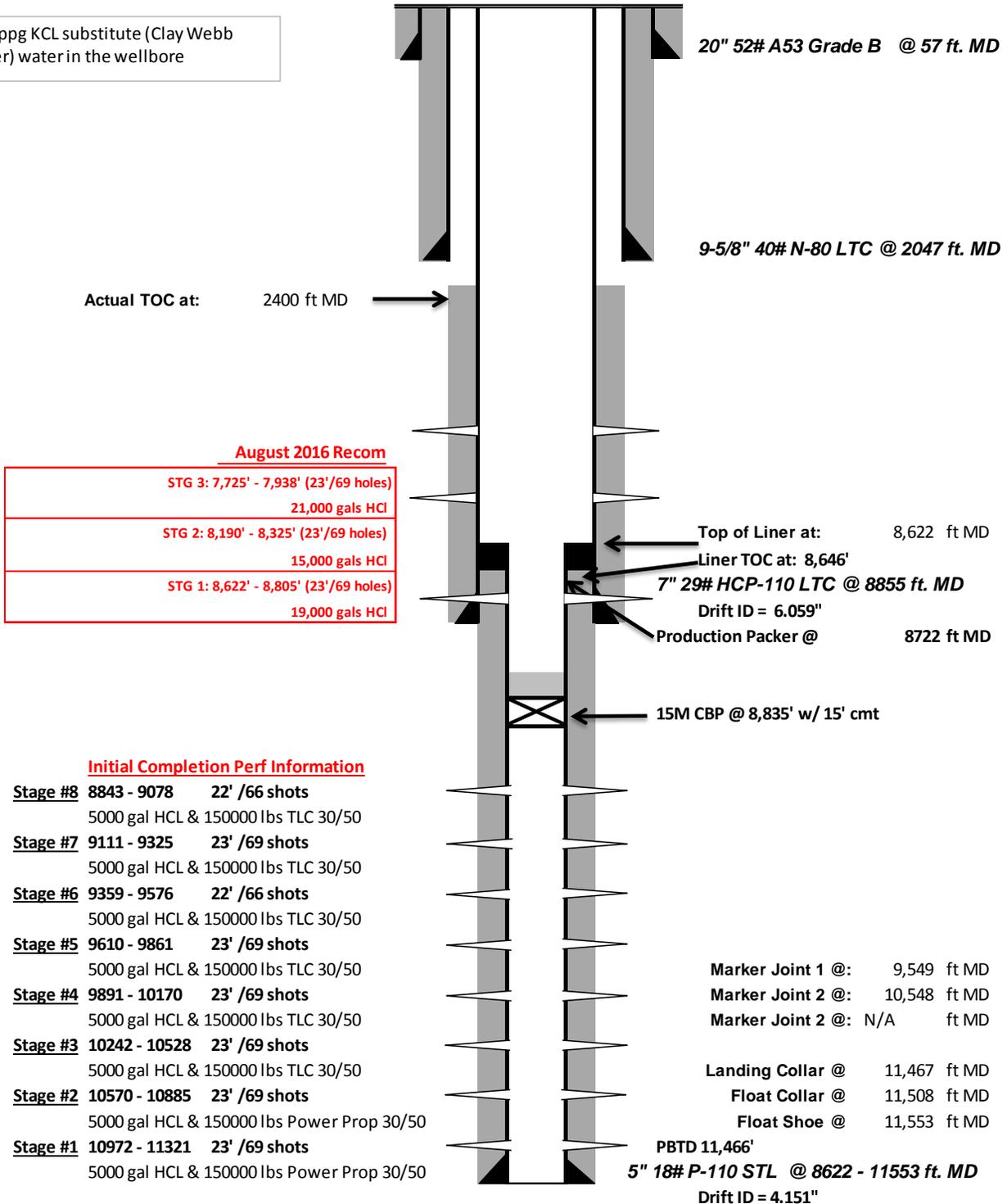


Current Pumping Wellbore Schematic

Well Name: **Flying Dutchman 6-20C4**
 Company Name: **EP Energy**
 Field, County, State: **Altamont, Duchesne, Utah**
 Surface Location: **Lat: 40°12'40.21" N Long: 110°22'3.24" W**
 Producing Zone(s): **Wasatch**

Last Updated: **9/14/2016**
 By: **Fondren**
 TD: **11,553**
 API: **4301353167**
 AFE: **163413**

8.43 ppg KCL substitute (Clay Webb Water) in the wellbore



STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT FORM 8
(highlight changes)

5. LEASE DESIGNATION AND SERIAL NUMBER:

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT or CA AGREEMENT NAME

8. WELL NAME and NUMBER:

9. API NUMBER:

10 FIELD AND POOL, OR WILDCAT

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

12. COUNTY

13. STATE

UTAH

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL GAS WELL DRY OTHER _____

b. TYPE OF WORK: NEW WELL HORIZ. LATS. DEEP-EN RE-ENTRY DIFF. RESVR. OTHER _____

2. NAME OF OPERATOR:

3. ADDRESS OF OPERATOR: CITY STATE ZIP PHONE NUMBER:

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE:

AT TOP PRODUCING INTERVAL REPORTED BELOW:

AT TOTAL DEPTH:

14. DATE SPUDDED: 15. DATE T.D. REACHED: 16. DATE COMPLETED: ABANDONED READY TO PRODUCE 17. ELEVATIONS (DF, RKB, RT, GL):

18. TOTAL DEPTH: MD TVD 19. PLUG BACK T.D.: MD TVD 20. IF MULTIPLE COMPLETIONS, HOW MANY? * 21. DEPTH BRIDGE PLUG SET: MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each) 23. WAS WELL CORED? NO YES (Submit analysis)
WAS DST RUN? NO YES (Submit report)
DIRECTIONAL SURVEY? NO YES (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A)				
(B)				
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL

29. ENCLOSED ATTACHMENTS:

- ELECTRICAL/MECHANICAL LOGS GEOLOGIC REPORT DST REPORT DIRECTIONAL SURVEY
 SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION CORE ANALYSIS OTHER: _____

30. WELL STATUS:

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)

35. ADDITIONAL REMARKS (Include plugging procedure)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) _____ TITLE _____
 SIGNATURE _____ DATE _____

This report must be submitted within 30 days of

- completing or plugging a new well
- reentering a previously plugged and abandoned well
- drilling horizontal laterals from an existing well bore
- significantly deepening an existing well bore below the previous bottom-hole depth
- recompleting to a different producing formation
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining Phone: 801-538-5340
 1594 West North Temple, Suite 1210
 Box 145801 Fax: 801-359-3940
 Salt Lake City, Utah 84114-5801

CENTRAL DIVISION

ALTAMONT FIELD
FLYING DUTCHMAN 6-20C4
FLYING DUTCHMAN 6-20C4
RECOMPLETE LAND

Operation Summary Report

Disclaimer: Although the information contained in this report is based on sound engineering practices, the copyright owner(s) does (do) not accept any responsibility whatsoever, in negligence or otherwise, for any loss or damage arising from the possession or use of the report whether in terms of correctness or otherwise. The application, therefore, by the user of this report or any part thereof, is solely at the user's own risk.

1 General**1.1 Customer Information**

Company	CENTRAL DIVISION
Representative	
Address	

1.2 Well Information

Well	FLYING DUTCHMAN 6-20C4		
Project	ALTAMONT FIELD	Site	FLYING DUTCHMAN 6-20C4
Rig Name/No.		Event	RECOMPLETE LAND
Start date	10/9/2016	End date	10/21/2016
Spud Date/Time	12/23/2014	UWI	FLYING DUTCHMAN 6-20C4
Active datum	KB @5,886.0usft (above Mean Sea Level)		
Afe No./Description	167267/57259 / FLYING DUTCHMAN 6-20C4		

2 Summary**2.1 Operation Summary**

Date	Time Start-End	Duration (hr)	Phase	Activity Code	Sub	OP Code	MD from (usft)	Operation
10/9/2016	6:00 12:00	6.00	MIRU	42		P		WAIT FOR CO-ROD RIG.
	12:00 12:30	0.50	MIRU	28		P		HELD SAFETY MEETING ON RIGGING UP CO-ROD RIG. FILLED OUT AND REVIEWED JSA.
	12:30 13:30	1.00	MIRU	01		P		SLID BACK ROTA-FLEX.. MIRU CO-ROD RIG WHILE PUMPING 70 BBLS DOWN CSG.
	13:30 14:00	0.50	PRDHEQ	06		P		PUMPED 15 BBLS UNABLE TO FLUSH TBG @ 1500 PSI.
	14:00 17:30	3.50	PRDHEQ	39		P		TOOH W/ 725'-SE # 8, 842'- SE # 7, 1008'-SE # 6, 4647'-SE # 5, 1150'-SE # 6, STAB SUB, ON-OFF TOOL AND 2 1/2" X 1 3/4" X 38' RHBC HF ACCELERATED PUMP. RD CO-ROD RIG. FLUSHED TBG W/ 60 BBLS. CLOSED IN TBG CLOSED FLOW LINE. INSTALLED NIGHT CAP. LEFT CSG OPEN TO TREATER.
10/10/2016	6:00 6:00	24.00	WOR	18		P		NO ACTIVITY
10/11/2016	6:00 8:30	2.50	MIRU	28		P		CREW TRAVEL HELD SAFETY MEETING ON RIGGING UP RIG. FILLED OUT AND REVIEWED JSA.
	8:30 9:30	1.00	MIRU	01		P		MIRU SERVICE RIG.
	9:30 10:30	1.00	WHDTRE	18		P		CLEANED OUT CELLAR W/ HOT OILER AND WATER TRUCK.
	10:30 13:30	3.00	WHDTRE	16		P		ND WELLHEAD, LANDED TBG ON 4' PERF 2 7/8 TBG SUB, HANGER W/ TWC, 2 7/8 TBG SUBW/ TIW VALVE. NU 5 M DOUBLE BOP W/ 2 7/8 PIPE RAMS ON TOP AND BLIND RAMS ON BTM AND 5M 7 1/16" ANNULAR. PRESSURE TESTED BOP TO 4000 PSI HIGH AND 250 LOW., ANNULAR @ 3000 PSI HIGH AND 250 LOW.
	13:30 17:00	3.50	WOR	39		P		RELEASED 1/4 TURN TAC, RU SCANNERS TOOH W/ 98-JTS 2 7/8 L-80 EUE TBG 74-YELLOW, 22-BLUE AND 2-RED, RD SCANNERS TOOH W/ 45-JTS 3 1/2 L-80 EUE LINED TBG, RU SCANNERS CONTINUE SCANNING OUT W/ 70-JTS 2 7/8 L-80 EUE TBG 59 YELLOW, 10 BLUE AND 1 RED. CLOSED IN WELL. CSG BARRIER 1 PIPE RAMS, BARRIER 2 ANNULAR, TBG BARRIER 1 TIW VALVE, BARRIER 2 NIGHT CAP, CLOSED CSG VALVES AND INSTALLED NIGHT CAPS. SDFN
10/12/2016	6:00 7:30	1.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON SCANNING TUBING. FILLED OUT AND REVIEWED JSA.
	7:30 8:00	0.50	WOR	17		P		20 TSIP, 20 CSIP. BLED DOWN GAS, FLUSHED TBG W/ 15 BBLS, PUMPED 40 BBLS DOWN CSG.

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity Code	Sub	OP Code	MD from (usft)	Operation
	8:00 9:30	1.50	WOR	39		P		CONTINUED SCANNING TBG. SCANNED 47-JTS 2 7/8 L-80 EUE TBG, 11-YELLOW (TTL 144-YELLOW), 33-BLUE (TTL 65 BLUE), 3-RED (TTL 6-RED), LD PROD BHA.
	9:30 15:00	5.50	WLWORK	26		P		RU WIRELINE TESTED LUBRICATOR AND BOP @ 450 PSI HELD, RAN 6" GR/JB TO LINER TOP @ 8622', RAN 4" GR/JB TO 8843', SET 15M CBP @ 8835', DUMPED BAILED 15' CMT ON TOP OF CBP. RD WIRELINE CLOSED IN WELL CSG BARRIER 1 CBP, BARRIER 2 BLIND RAMS. CLOSED CSG VALVES AND INSTALLED NIGHT CAPS. SDFN.
10/13/2016	6:00 7:30	1.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON NIPPLING DOWN BOPE. FILLED OUT AND REVIEWED JSA.
	7:30 8:30	1.00	WHDTRE	16		P		0 CSIP. OPENED WELL INSTALLED HANGER W/ TWC. BARRIER 1 CBP, BARRIER 2 TWC. ND 5M BOP, NU 7 1/16" MANUAL FRAC VALVE AND PRESSURE TEST @ 250 LOW AND 8500 PSI HIGH. REMOVED HANGER AND TWC.
	8:30 10:00	1.50	WBP	06		P		FILLED CSG W/ 215 BBLs 2% KCL. PRESSURE TEST CSG @ 8000 PSI FOR 1/2 HR HELD.
	10:00 13:00	3.00	WHDTRE	16		P		RAN FLOWBACK LINES. NU 7 1/16" 10M HCR VALVE, GOATHEAD, 7 1/16" 10M HCR VALVE AND 5M WIRELINE FLANGE. PRESSURE TEST EACH SECTION TO 9500 PSI HIGH AND 250 LOW. PRESSURE TEST FLOWBACK LINES @ 8000 PSI HIGH AND 250 LOW.
	13:00 16:00	3.00	STG01	21		P		RU WIRELINE PRESSURE TEST LUBRICATOR @ 250 PSI LOW AND 4000 PSI HIGH. PERFORATED STAGE # 1 FROM 8782' TO 8606'. USING 3 1/8, 22.7 GM, 120 DEGREE PHASING, 3 SPF. ALL PERFS CORRELATED TO CUTTERS RADIAL CBL GR/CCL LOG DATED 1-20-2015. STARTING PRESSURE 1000 PSI, FINAL PRESSURE 0 PSI. CLOSED AND LOCKED ALL FRAC VALVES 3 BARRIERS. CLOSED CSG VALVES AND INSTALLED NIGHT CAPS 2 BARRIERS. RD WIRELINE. SDFN.
10/14/2016	6:00 7:30	1.50	SITEPRE	28		P		CREW TRAVEL HELD SAFETY MEETING ON HEATING FRAC WATER. FILLED OUT AND REVIEWED JSA.
	7:30 7:30	0.00	MIRU	01		P		MOVE IN AND START RIGGING UP FRAC EQUIPMENT. SDFN.
	7:30 15:30	8.00	SITEPRE	18		P		HEATED 3000 BBLs FRESH WATER TO 120 DEGREES.
	15:30 19:00	3.50	MIRU	42		P		WAIT ON FRAC EQUIPMENT.
	19:00 1:00	6.00	MIRU	01		P		MOVE IN AND RIG UP FRAC EQUIPMENT.
10/15/2016	6:00 7:30	1.50	MIRU	28		P		CREW TRAVEL HELD SAFETY MEETING ON RIGGING UP WIRELINE. FILLED OUT AND REVIEWED JSA.
	7:30 10:00	2.50	MIRU	01		P		ND NIGHT CAP, NU WIRELINE FLANGE AND BOP. SET POPOFFS @ 8200 PSI. STARTED EQUIPMENT AND PRIMED TRUCKS, AND PRESSURE TEST LINES @ 9500 PSI.
	10:00 11:00	1.00	STG01	35		P		OPENED WELL W/ 0 PSI. FILLED CSG W/ 140 BBLs. BREAK DOWN STAGE # 1 PERFS @ 4244 PSI 15.6 BPM. TREATED PERFS W/ 18532 GALS 15% HCL ACID. DROPPED 80 BIO BALLS. 16 EVERY 3150 GALS TTL 5 DROPS. AVG RATE 39.7 BPM, MAX RATE 48.7 BPM. AVG PRESS 4198 PSI, MAX PRESS 6461 PSI. I.S.I.P. 2952 PSI, F.G. .77. 5 MIN 2598 PSI, 10 MIN 2438 PSI, 15 MIN 2270 PSI SHUT IN WELL. 1053 BBLs TO RECOVER. TURNED WELL OVER TO WIRELINE.
	11:00 14:00	3.00	STG02	21		P		RU WIRELINE PRESSURE TEST LUBRICATOR AND BOP @ 250 PSI LOW AND 4000 PSI HIGH HELD. RIH SET CBP @ 8317' W/ 30 PSI @ 12:57. PERFORATED STAGE # 2 FROM 8302' TO 8172'. USING 3 1/8, 22.7 GM, 120 DEGREE PHASING, 3 SPF GUNS. ALL PERFS CORRELATED TO CUTTERS RADIAL CBL GR/CCL LOG DATED 1-20-2015. STARTING PRESSURE 30 PSI, FINAL PRESSURE 0 PSI. PULLED OUT TURNED WELL OVER TO FRAC CREW.

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity Code	Sub	OP Code	MD from (usft)	Operation
	14:00 14:45	0.75	STG02	35		P		OPENED WELL W/ 140 PSI. BREAK DOWN STAGE # 2 PERFS @ 2788 PSI 8 BPM. TREATED PERFS W/ 10788 GALS 15% HCL ACID.DROPPED 64 BIO BALLS. 16 EVERY 3000 GALS TTL 4 DROPS. AVG RATE 32.8 BPM, MAX RATE 48.6 BPM. AVG PRESS 2483 PSI, MAX PRESS 4069 PSI. I.S.I.P. 1547 PSI, F.G. .62. 5 MIN 1150 PSI, 10 MIN 939 PSI, 15 MIN 786 PSI. SHUT IN WELL. 824 BBLS TO RECOVER. TURNED WELL OVER TO WIRELINE.
	14:45 17:00	2.25	STG03	21		P		RU WIRELINE. RIH SET CBP @ 7926' W/ 300 PSI @ 4:00 PM. PERFORATED STAGE # 3 FROM 7911' TO 7701'. USING 3 1/8, 22.7 GM, 120 DEGREE PHASING, 3 SPF GUNS. ALL PERFS CORRELATED TO CUTTERS RADIAL CBL GR/CCL LOG DATED 1-20-2015. STARTING PRESSURE 300 PSI, FINAL PRESSURE 100 PSI. PULLED OUT. WHILE PULLING GUN INTO LUBRICATOR, PULLED OVER. PULLED OUT OF CABLE HEAD.
	17:00 18:00	1.00	RDMO	02		N		LAY DOWN LUBRICATOR, ND BOP , CALL FOR BRAIDED LINE TRUCK
	18:00 22:30	4.50	WLWORK	42		N		WAIT ON FISHING TOOLS AND WIRELINE TRUCK.
	22:30 2:30	4.00	WLWORK	52		N		RU BRAIDE LINE TRUCK RIH W/ 5 3/4" OVER SHOT AND 1 11/16" GRAPPLE, LATCHED ONTO FISH .PULLED OUT W/ OVERSHOT AND CCL, PERF GUN AND SETTING TOOL. WHILE PUMPING 180 BBLS DOWN CSG TOOK 140 BBLS TO FILL. LD FISH AND RD BRAIDED LINE TRUCK. CLOSED IN WELL CLOSED AND LOCKED FRAC VALVES. 3 BARRIERS. CLOSED CSG VALVES AND INSTALLED NIGHT CAPS 2 BARRIERS. SDFN.
10/16/2016	6:00 7:30	1.50	STG03	28		P		CREW TRAVEL HELD SAFETY MEETING ON PRESSURE TESTING LINES. FILLED OUT AND REVIEWED JSA. PRESSURE TEST LINES @ 9005.
	7:30 8:30	1.00	STG03	35		P		OPENED WELL W/ 0 PSI. FILLED CSG W/ 100 BBLS. BREAK DOWN STAGE # 3 PERFS @ 2345 PSI 8.1 BPM. TREATED PERFS W/ 17801 GALS 15% HCL ACID.DROPPED 94 BIO BALLS. 18 EVERY 3500 GALS TTL 5 DROPS. AVG RATE 31.8 BPM, MAX RATE 50.1 BPM. AVG PRESS 2951 PSI, MAX PRESS 3057 PSI. I.S.I.P. 1238 PSI, F.G. .59. 5 MIN 0 PSI. SHUT IN WELL. 1034 BBLS TO RECOVER
	8:30 10:30	2.00	RDMO	02		P		RD FRAC EQUIPMENT. MOVED OFF LOCATION.
	10:30 16:00	5.50	WHDTRE	16		P		WELL DEAD. ND FRAC STACK TO 7 1/16" MASTER VALVE NU 5M BOPE AND ANNULAR. PRESSURE TEST BLIND RAMS. 7 1/16" MASTER VALVE LEAKING, INSTALLED HANGER AND TWC. BARRIER 1 FLUID, BARRIER 2 HANGER W/ TWC. PRESSURE TEST PIPE RAMS @ 250 LOW AND 4000 PSI HIGH, PRESSURE TEST ANNULAR @ 250 LOW AND 3000 PSI HIGH. WHILE WAITING ON 7 1/16" 10M FRAC VALVE, ND BOP AND ANULAR PICKE THEM UP W/ RIG, ND FRAC VALVE. NU NEW 7 1/16" 10M FRAC VALVE. NU BOP AND HYDRIL. PRESSURE TEST FRAC VLAVE AND BLIND RAMS @ 4000 PSI HIGH AND 250 PSI LOW, RU RIG FLOOR. CLOSED IN WELL CSG BARRIER 1 FRAC VALVE, BARRIER 2 BLIND RAMS. CSG VLAVES CLOSED AND NIGHT CAPS INSTALLED.
10/17/2016	6:00 6:00	24.00	WOR	18		P		NO ACTIVITY
10/18/2016	6:00 8:30	2.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON WELL CONTROL. FILLED OUT AND REVIEWED JSA.
	8:30 9:30	1.00	WOR	06		P		450 CSIP. BLED DOWN GAS. PUMPED 100 BBLS 2% KCL WELL OPENED WELL
	9:30 12:30	3.00	WOR	39		P		TALLIED AND RIH W/ 6" BIT, BIT SUB, 2-JTS 2 7/8 L-80 EUE TBG, SN AND 156-JTS 2 7/8 L-80 EUE TBG. TAGGED CBP SET @ 7926' (7951'TBG TALLY)
	12:30 14:00	1.50	WOR	42		P		WAIT ON TUBING.
	14:00 15:00	1.00	WOR	39		P		CONTINUED RIH W/ 14-JTS 2 7/8 L-80 EUE TBG, TAGGED CBP SET @ 7926' (7951'TBG TALLY). RU POWER SWIVEL.

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity Code	Sub	OP Code	MD from (usft)	Operation
	15:00 18:00	3.00	WOR	39		P		PUMPED 200 BBLS 2% KCL DOWN CSG BREAK REVERSE CIRCULATION. SLOWED PUMP RATE TO 7 BPM RETURNING 3 BPM. DRILL OUT CBP RIH TO 8002'. CIRCULATE TBG CLEAN. RD POWER SWIVEL, TOOH W/ 12-JTS 2 7/8 L-80 EUE TBG EOT @ 7611'. CLOSED IN WELL. CSG BARRIER 1 PIPE RAMS, BARRIER 2 ANNULAR, TBG BARRIER 1 TIW VALVE, BARRIER 2 NIGHT CAP. CLOSED CSG VALVES AND INSTALLED NIGHT CAPS. SDFN.
10/19/2016	6:00 7:30	1.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON DRILLING CBP. FILLED OUT AND REVIEWED JSA.
	7:30 8:30	1.00	WOR	39		P		0 TSIP, 40 CSIP. BLEED DOWN CSG. OPENED WELL RIH W/ 23-JTS 2 7/8 L-80 EUE TBG. TAGGED CBP SET @ 8317' (8344' TBG TALLY). RU POWER SWIVEL
	8:30 13:00	4.50	WOR	10		P		PUMPED 85 BBLS 2% KCL DOWN CSG @ 10 BPM. BREAK REVERS CIRCULATION. SLOWED PUMP RATE DOWN TO 6 BPM AND RETURNING 3 BPM. DRILLED THRU CBP LOST CIRCULATION, INCREASED RATE TO 10 BPM RETURNING 2 BPM. CIRCULATE TBG CLEAN. CONTINUED RIH W/ 9-JTS 2 7/8 L-80 EUE T BG. TAGGED REMAINS OF 7" CBP AND LT 8622' (8649' TBG TALLY). PUMPED 100 BBLS BREAK REVERSE CIRCULATION. FINISHED DRILLING REMAINS OF CBP. PUMPING 10 BPM AND RETURNING 2 BPM. LOST TTL 1103 BBLS, RD POWER SWIVEL.
	13:00 17:30	4.50	WOR	39		P		TOOH W/ 263-JTS 2 7/8 L-80 EUE TBG, SN, 2-JTS 2 7/8 L-80 EUE TBG, BIT SUB AND 6" BIT. RIH W/ 4 1/8" BIT, BIT SUB, 10-JTS 2 3/8 L-80 EUE TBG, X-OVER AND 203-JTS 2 7/8 L-80 EUE TBG. EOT @ 6956'. CLOSED IN WELL. CSG BARRIER 1 PIPE RAMS, BARRIER 2 ANNULAR, TBG BARRIER 1 TIW VALVE, BARRIER 2 NIGHT CAP. CLOSED CSG VALVES AND INSTALLED NIGHT CAPS. SDFN.
10/20/2016	6:00 8:30	2.50	WOR	28		P		CREW TRAVEL. HAD ROD SCHOOL W/ WEATHERFORD ALS.
	8:30 9:30	1.00	WOR	28		P		HELD SAFETY MEETING ON RIGGING UP POWER SWIVEL. FILLED OUT AND REVIEWED JSA.
	9:30 11:00	1.50	WOR	39		P		320 TSIP, 320 CSIP. BLEED DOWN GAS. PUMPED 60 BBLS DOWN CSG. 20 BBLS DOWN T BG. WELL ON VACUUM. OPENED WELL RIH W/ 52-JTS 2 7/8 L-80 EUE TBG. TAGGED LINER @ 8622' (8649 TBG TALLY). RU POWER SWIVEL.
	11:00 15:00	4.00	WOR	10		P		PUMPED 105 BBLS DOWN CSG BREAK REVERSE CIRCULATION. FINISHED DRILLING 7" CBP AT LINER TOP. PUMPING 10 BPM AND RETURNING 2.2 BPM. CONTINUED RIH CLEANED OUT TO PBTD 8822' CMT TOP, 5' IN ON JT # 262 (8842' TBG TALLY). CIRCULATE TBG CLEAN. RD POWER SWIVEL.
	15:00 17:30	2.50	WOR	39		P		TOOH W/ 183 JTS 2 7/8 L-80 EUE TBG, EOT @ 3008', CLOSED IN WELL. CSG BARRIER 1 PIPE RAMS, BARRIER 2 ANNULAR, TBG BARRIER 1 TIW VALVE, BARRIER 2 NIGHT CAP. CLOSED CSG VALVES AND INSTALLED NIGHT CAPS. SDFN.
10/21/2016	6:30 7:30	1.00	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON WELL CONTROL. FILLED OUT AND REVIEWED JSA.
	7:30 8:30	1.00	WOR	06		P		200 TSIP, 200 CSIP. BLEED OFF GAS. PUMPED 8 BBLS DOWN TBG. WELL ON VACUUM. OPENED WELL.
	8:30 9:30	1.00	WOR	39		P		TOOH W/ 80-JTS 2 7/8 L-80 EUE TBG, X-OVER, 10-JTS 2 3/8 L-80 EUE TBG, BIT SUB AND 4 1/8 BIT.

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity Code	Sub	OP Code	MD from (usft)	Operation
	9:30 16:00	6.50	WOR	39		P		RIH W/ SOLID 5 3/4 NO-GO, 2-JTS 2 7/8 L-80 EUE TBG, 5 1/2 PBGA, 4' 2 7/8 N-80 EUE TBG SUB, 2' 2 7/8 N-80 EUE TBG SUB, MECH SN, 2 7/8" X 2 1/4" X 40' TBG PUMP BARREL, 4' 2 7/8 N-80 EUE TBG SUB. RU HYDRO TESTER, RIH HYDRO TESTING @ 8500 PSI W/ 4-JTS 2 7/8 L-80 EUE TBG, KLX ARROWSET TPYE TAC, 110-JTS 2 7/8 L-80 EUE TBG. PULLED HYDRO TESTING TOOLS, RIH W/ 2 7/8 EUE X 3 1/2 EUE X-OVER, 45-JTS 3 1/2 L-80 EUE R2 ULTRATUBE TBG, 3 1/2 EUE X 2 7/8 EUE X-OVER. CONTINUED RIH HYDRO TESTING @ 8500 PSI W/ 98-JTS 2 7/8 L-80 EUE TBG. FOUND NO LEAKS. RD HYDRO TESTER.
	16:00 20:30	4.50	WOR	16		P		RD RIG FLOOR, ND ANNULAR, BOP AND 7 1/16 10M FRAC VALVE, SET KLX ARROWSET TYPE TAC @ 8297' SN @ 8477' AND EOT @ 8583'. NU WELLHEAD. RD RIG, PLUMBED IN FLOWLINE. LEFT CSG OPEN TO TREATER ON 18/64 CHOKE. CLOSED IN TBG. BARRIER 1 FLUID, BARRIER 2 NIGHT CAP. CLOSED FLOWLINE VALVES SDFN.
10/22/2016	6:00 10:00	4.00	WOR	42		P		WAIT ON COROD RIG. HELD SAFETY MEETING ON RIGGING UP COROD RIG. FILLED OUT AND REVIEWED JSA.
	10:00 11:30	1.50	MIRU	01		P		MIRU COROD RIG WHILE FLUSHING TBG W/ 50 BBLS 2% KCL. DROPPED STANDING VALVE, PUMPED 35 BBLS 25 KCL, PUMPED 10 GALS CORROSION INHIBITOR AND 25 BBLS 2% KCL. STANDING VALVE DIDN'T SEAT.
	11:30 13:00	1.50	WOR	39		P		2 1/4" X 5' PLUNGER, 1 1/2" X 40' POLISH ROD, STAB SUB, TMX-120 LEFT HAND ON/OFF TOOL, 1150' SE # 6, 4647' SE # 5, 1008' SE # 6, 842' SE # 7 AND 725' SE # 8 COROD. SPACED OUT ROD W/ 1-6', 1-4', 1-2' X 1" SUBS. PU POLISH ROD FILLED TBG W/ 10 BBLS PRESSURE AND STROKE TEST @ 1000 PSI HELD.
	13:00 14:30	1.50	RDMO	02		P		RD COROD RIG, SLID IN ROTA-FLEX. PUT WELL ON PRODUCTION.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	5. LEASE DESIGNATION AND SERIAL NUMBER: Fee
1. TYPE OF WELL Oil Well	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY, L.P.	7. UNIT or CA AGREEMENT NAME:
3. ADDRESS OF OPERATOR: 1001 Louisiana, Houston, TX, 77002	8. WELL NAME and NUMBER: Flying Dutchman 6-20C4
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0700 FNL 0700 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 20 Township: 03.0S Range: 04.0W Meridian: U	9. API NUMBER: 43013531670000
5. PHONE NUMBER: 713 997-5138 Ext	9. FIELD and POOL or WILDCAT: ALTAMONT
	COUNTY: DUCHESNE
	STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 12/15/2016	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="Squeeze"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

- POOH with co-rod, pump & tubing. Inspect/Repair/Re-furbish as needed. Replace any bad tubing and joints of rods. • Isolate 2016 Recom Stage 2 w/ RBP, PKR and tubing and swab test. **This zone is suspected to be the water zone** o Pending positive swab results identifying water zone, POOH with RBP, PKR and tubing. o Pending negative swab results and not identifying water zone, continue to swab 2016 Recom Stage 1 and 3 to identify water zone and proceed with cement squeeze. • Set CBP @ 8,325' and set CCR @ 8,150'. • Squeeze off 2016 Recom Stage 2 perfs @ 8,190' – 8,325' w/ cmt, drill out cmt retainer and cmt to CBP @ 8,325'. Test squeeze to 1,000 psi every 20'.
- Isolate 2016 Recom Stage 2 squeezed off perfs w/ 7" PKR and tubing. Negative swab test zone to confirm cmt squeeze is holding. • Drill out CBP @ 8,220' w/ 6" bit. • Clean out to PBTD @ 8,835' w/ 4-1/8" bit.

Approved by the
Utah Division of
Oil, Gas and Mining

Date: _____

By: *Derek Duff*

NAME (PLEASE PRINT) Erik Hauser	PHONE NUMBER 713 997-6717	TITLE Sr EHS Specialist
SIGNATURE N/A	DATE 12/6/2016	

Flying Dutchman 6-20 C4 Water Isolation and Squeeze

- POOH with co-rod, pump & tubing. Inspect/Repair/Re-furbish as needed. Replace any bad tubing and joints of rods.
- Isolate 2016 Recom Stage 2 w/ RBP, PKR and tubing and swab test. **This zone is suspected to be the water zone**
 - Pending positive swab results identifying water zone, POOH with RBP, PKR and tubing.
 - Pending negative swab results and not identifying water zone, continue to swab 2016 Recom Stage 1 and 3 to identify water zone and proceed with cement squeeze.
- Set CBP @ 8,325' and set CCR @ 8,150'.
- Squeeze off 2016 Recom Stage 2 perfs @ 8,190' – 8,325' w/ cmt, drill out cmt retainer and cmt to CBP @ 8,325'. Test squeeze to 1,000 psi every 20'.
- Isolate 2016 Recom Stage 2 squeezed off perfs w/ 7" PKR and tubing. Negative swab test zone to confirm cmt squeeze is holding.
- Drill out CBP @ 8,220' w/ 6" bit.
- Clean out to PBTD @ 8,835' w/ 4-1/8" bit.
- RIH w/ production tubing and rods.
- Clean location and resume production.

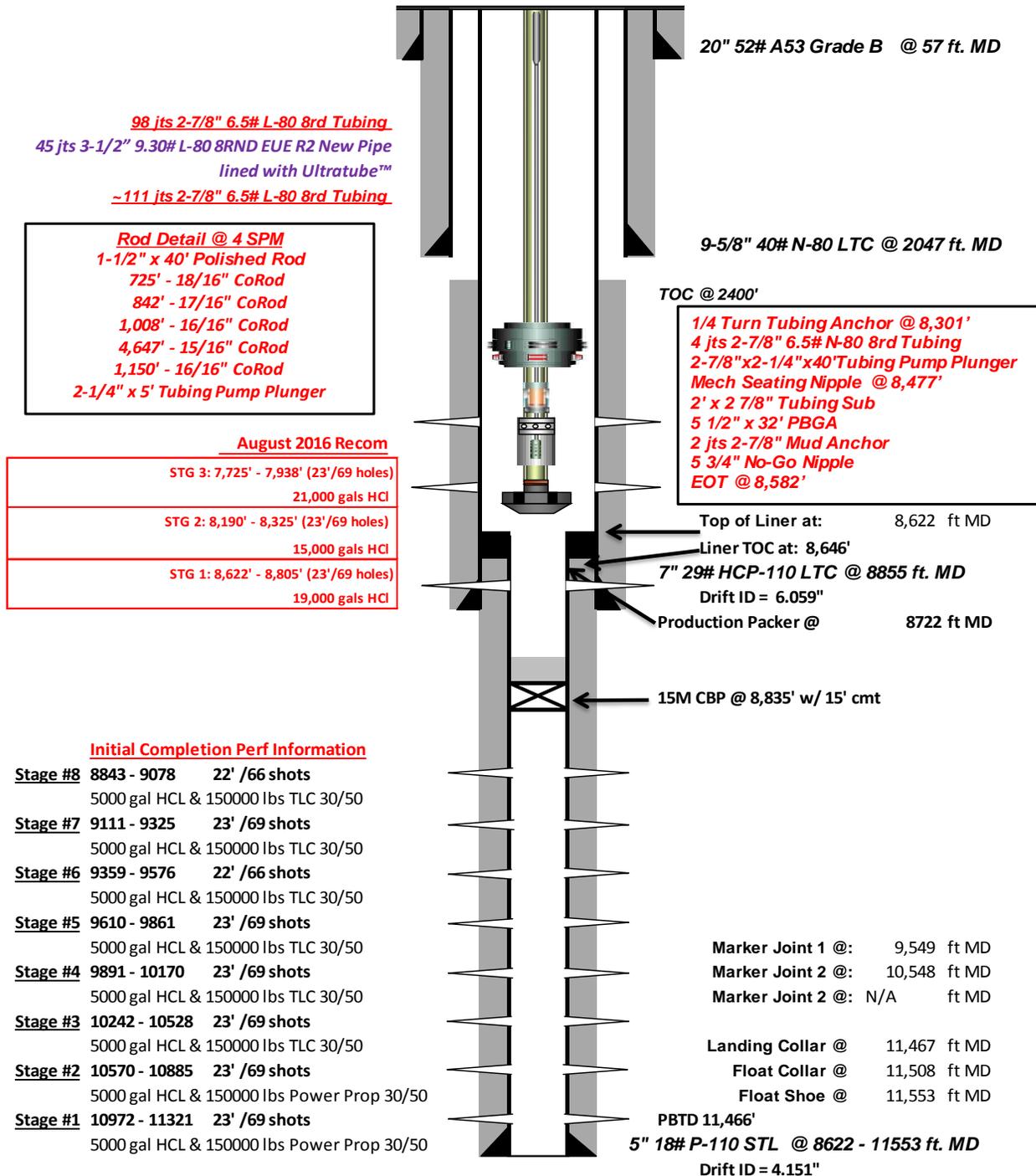
Current WBD



Proposed RECOM Pumping Wellbore Schematic

Well Name: **Flying Dutchman 6-20C4**
 Company Name: **EP Energy**
 Field, County, State: **Altamont, Duchesne, Utah**
 Surface Location: **Lat: 40°12'40.21" N Long: 110°22'3.24" W**
 Producing Zone(s): **Wasatch**

Last Updated: **11/30/2016**
 By: **Fondren/Tomova**
 TD: **11,553**
 API: **4301353167**
 AFE:



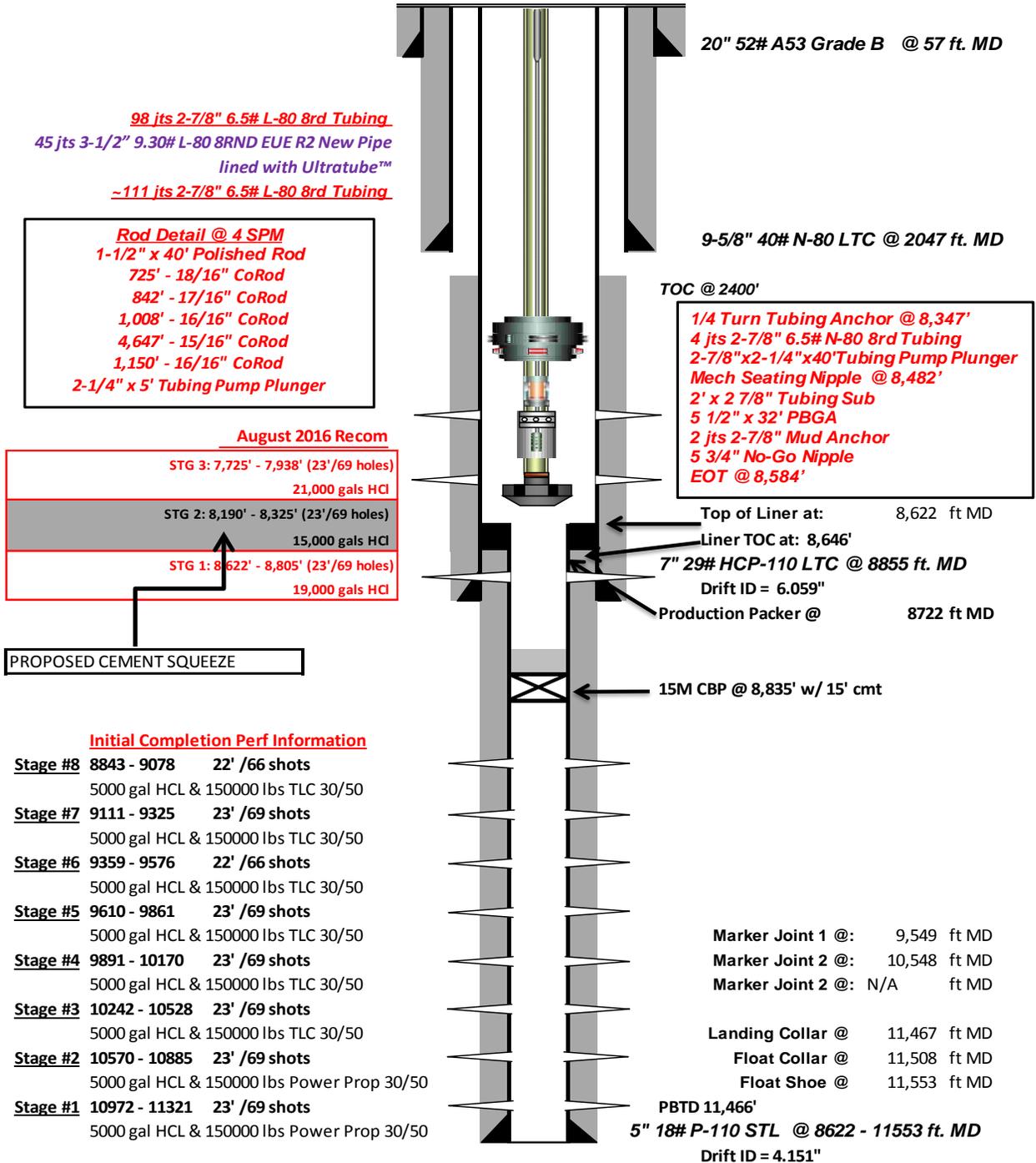
Proposed WBD



Proposed RECOM Pumping Wellbore Schematic

Well Name: Flying Dutchman 6-20C4
 Company Name: EP Energy
 Field, County, State: Altamont, Duchesne, Utah
 Surface Location: Lat: 40°12'40.21" N Long: 110°22'3.24" W
 Producing Zone(s): Wasatch

Last Updated: 11/30/2016
 By: Fondren/Tomova
 TD: 11,553
 API: 4301353167
 AFE: _____



August 2016 Recom

STG 3: 7,725' - 7,938' (23'/69 holes)	21,000 gals HCl
STG 2: 8,190' - 8,325' (23'/69 holes)	15,000 gals HCl
STG 1: 8,622' - 8,805' (23'/69 holes)	19,000 gals HCl

PROPOSED CEMENT SQUEEZE

Initial Completion Perf Information

Stage #8	8843 - 9078	22' /66 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #7	9111 - 9325	23' /69 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #6	9359 - 9576	22' /66 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #5	9610 - 9861	23' /69 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #4	9891 - 10170	23' /69 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #3	10242 - 10528	23' /69 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #2	10570 - 10885	23' /69 shots	5000 gal HCL & 150000 lbs Power Prop 30/50
Stage #1	10972 - 11321	23' /69 shots	5000 gal HCL & 150000 lbs Power Prop 30/50

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9	
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: Fee	
		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
1. TYPE OF WELL Oil Well		7. UNIT or CA AGREEMENT NAME:	
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY, L.P.		8. WELL NAME and NUMBER: Flying Dutchman 6-20C4	
3. ADDRESS OF OPERATOR: 1001 Louisiana , Houston, TX, 77002		9. API NUMBER: 43013531670000	
PHONE NUMBER: 713 997-6717 Ext		9. FIELD and POOL or WILDCAT: ALTAMONT	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0700 FNL 0700 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 20 Township: 03.0S Range: 04.0W Meridian: U		COUNTY: DUCHESNE	
		STATE: UTAH	
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 12/21/2016 <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input checked="" type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input type="text" value="Squeeze"/>
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Please see attached Operations summary report describing the squeeze and water isolation process.			
Accepted by the Utah Division of Oil, Gas and Mining		FOR RECORD ONLY	
February 01, 2017			
NAME (PLEASE PRINT) Erik Hauser	PHONE NUMBER 713 997-6717	TITLE Sr. HSER Specialist	
SIGNATURE N/A		DATE 1/19/2017	

1 General**1.1 Customer Information**

Company	CENTRAL DIVISION
Representative	
Address	

1.2 Well Information

Well	FLYING DUTCHMAN 6-20C4		
Project	ALTAMONT FIELD	Site	FLYING DUTCHMAN 6-20C4
Rig Name/No.		Event	RECOMPLETE LAND
Start date	10/9/2016	End date	1/6/2017
Spud Date/Time	12/23/2014	UWI	FLYING DUTCHMAN 6-20C4
Active datum	KB @5,886.0usft (above Mean Sea Level)		
Afe No./Description	167267/57259 / FLYING DUTCHMAN 6-20C4		

2 Summary**2.1 Operation Summary**

Date	Time Start-End	Duration (hr)	Phase	Activity Code	Sub	OP Code	MD from (usft)	Operation
10/9/2016	6:00 12:00	6.00	MIRU	42		P		WAIT FOR CO-ROD RIG.
	12:00 12:30	0.50	MIRU	28		P		HELD SAFETY MEETING ON RIGGING UP CO-ROD RIG. FILLED OUT AND REVIEWED JSA.
	12:30 13:30	1.00	MIRU	01		P		SLID BACK ROTA-FLEX.. MIRU CO-ROD RIG WHILE PUMPING 70 BBLS DOWN CSG.
	13:30 14:00	0.50	PRDHEQ	06		P		PUMPED 15 BBLS UNABLE TO FLUSH TBG @ 1500 PSI.
	14:00 17:30	3.50	PRDHEQ	39		P		TOOH W/ 725'-SE # 8, 842'- SE # 7, 1008'-SE # 6, 4647'-SE # 5, 1150'-SE # 6, STAB SUB, ON-OFF TOOL AND 2 1/2" X 1 3/4" X 38' RHBC HF ACCELERATED PUMP. RD CO-ROD RIG. FLUSHED TBG W/ 60 BBLS. CLOSED IN TBG CLOSED FLOW LINE. INSTALLED NIGHT CAP. LEFT CSG OPEN TO TREATER.
10/10/2016	6:00 6:00	24.00	WOR	18		P		NO ACTIVITY
10/11/2016	6:00 8:30	2.50	MIRU	28		P		CREW TRAVEL HELD SAFETY MEETING ON RIGGING UP RIG. FILLED OUT AND REVIEWED JSA.
	8:30 9:30	1.00	MIRU	01		P		MIRU SERVICE RIG.
	9:30 10:30	1.00	WHDTRE	18		P		CLEANED OUT CELLAR W/ HOT OILER AND WATER TRUCK.
	10:30 13:30	3.00	WHDTRE	16		P		ND WELLHEAD, LANDED TBG ON 4' PERF 2 7/8 TBG SUB, HANGER W/ TWC, 2 7/8 TBG SUBW/ TIW VALVE. NU 5 M DOUBLE BOP W/ 2 7/8 PIPE RAMS ON TOP AND BLIND RAMS ON BTM AND 5M 7 1/16" ANNULAR. PRESSURE TESTED BOP TO 4000 PSI HIGH AND 250 LOW., ANNULAR @ 3000 PSI HIGH AND 250 LOW.
	13:30 17:00	3.50	WOR	39		P		RELEASED 1/4 TURN TAC, RU SCANNERS TOOH W/ 98-JTS 2 7/8 L-80 EUE TBG 74-YELLOW, 22-BLUE AND 2-RED, RD SCANNERS TOOH W/ 45-JTS 3 1/2 L-80 EUE LINED TBG, RU SCANNERS CONTINUE SCANNING OUT W/ 70-JTS 2 7/8 L-80 EUE TBG 59 YELLOW, 10 BLUE AND 1 RED. CLOSED IN WELL. CSG BARRIER 1 PIPE RAMS, BARRIER 2 ANNULAR, TBG BARRIER 1 TIW VALVE, BARRIER 2 NIGHT CAP, CLOSED CSG VALVES AND INSTALLED NIGHT CAPS. SDFN
10/12/2016	6:00 7:30	1.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON SCANNING TUBING. FILLED OUT AND REVIEWED JSA.
	7:30 8:00	0.50	WOR	17		P		20 TSIP, 20 CSIP. BLED DOWN GAS, FLUSHED TBG W/ 15 BBLS, PUMPED 40 BBLS DOWN CSG.

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity Code	Sub	OP Code	MD from (usft)	Operation
	8:00 9:30	1.50	WOR	39		P		CONTINUED SCANNING TBG. SCANNED 47-JTS 2 7/8 L-80 EUE TBG, 11-YELLOW (TTL 144-YELLOW), 33-BLUE (TTL 65 BLUE), 3-RED (TTL 6-RED), LD PROD BHA.
	9:30 15:00	5.50	WLWORK	26		P		RU WIRELINE TESTED LUBRICATOR AND BOP @ 450 PSI HELD, RAN 6" GR/JB TO LINER TOP @ 8622', RAN 4" GR/JB TO 8843', SET 15M CBP @ 8835', DUMPED BAILED 15' CMT ON TOP OF CBP. RD WIRELINE CLOSED IN WELL CSG BARRIER 1 CBP, BARRIER 2 BLIND RAMS. CLOSED CSG VALVES AND INSTALLED NIGHT CAPS. SDFN.
10/13/2016	6:00 7:30	1.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON NIPPLING DOWN BOPE. FILLED OUT AND REVIEWED JSA.
	7:30 8:30	1.00	WHDTRE	16		P		0 CSIP. OPENED WELL INSTALLED HANGER W/ TWC. BARRIER 1 CBP, BARRIER 2 TWC. ND 5M BOP, NU 7 1/16" MANUAL FRAC VALVE AND PRESSURE TEST @ 250 LOW AND 8500 PSI HIGH. REMOVED HANGER AND TWC.
	8:30 10:00	1.50	WBP	06		P		FILLED CSG W/ 215 BBLs 2% KCL. PRESSURE TEST CSG @ 8000 PSI FOR 1/2 HR HELD.
	10:00 13:00	3.00	WHDTRE	16		P		RAN FLOWBACK LINES. NU 7 1/16" 10M HCR VALVE, GOATHEAD, 7 1/16" 10M HCR VALVE AND 5M WIRELINE FLANGE. PRESSURE TEST EACH SECTION TO 9500 PSI HIGH AND 250 LOW. PRESSURE TEST FLOWBACK LINES @ 8000 PSI HIGH AND 250 LOW.
	13:00 16:00	3.00	STG01	21		P		RU WIRELINE PRESSURE TEST LUBRICATOR @ 250 PSI LOW AND 4000 PSI HIGH. PERFORATED STAGE # 1 FROM 8782' TO 8606'. USING 3 1/8, 22.7 GM, 120 DEGREE PHASING, 3 SPF. ALL PERFS CORRELATED TO CUTTERS RADIAL CBL GR/CCL LOG DATED 1-20-2015. STARTING PRESSURE 1000 PSI, FINAL PRESSURE 0 PSI. CLOSED AND LOCKED ALL FRAC VALVES 3 BARRIERS. CLOSED CSG VALVES AND INSTALLED NIGHT CAPS 2 BARRIERS. RD WIRELINE. SDFN.
10/14/2016	6:00 7:30	1.50	SITEPRE	28		P		CREW TRAVEL HELD SAFETY MEETING ON HEATING FRAC WATER. FILLED OUT AND REVIEWED JSA.
	7:30 7:30	0.00	MIRU	01		P		MOVE IN AND START RIGGING UP FRAC EQUIPMENT. SDFN.
	7:30 15:30	8.00	SITEPRE	18		P		HEATED 3000 BBLs FRESH WATER TO 120 DEGREES.
	15:30 19:00	3.50	MIRU	42		P		WAIT ON FRAC EQUIPMENT.
	19:00 1:00	6.00	MIRU	01		P		MOVE IN AND RIG UP FRAC EQUIPMENT.
10/15/2016	6:00 7:30	1.50	MIRU	28		P		CREW TRAVEL HELD SAFETY MEETING ON RIGGING UP WIRELINE. FILLED OUT AND REVIEWED JSA.
	7:30 10:00	2.50	MIRU	01		P		ND NIGHT CAP, NU WIRELINE FLANGE AND BOP. SET POPOFFS @ 8200 PSI. STARTED EQUIPMENT AND PRIMED TRUCKS, AND PRESSURE TEST LINES @ 9500 PSI.
	10:00 11:00	1.00	STG01	35		P		OPENED WELL W/ 0 PSI. FILLED CSG W/ 140 BBLs. BREAK DOWN STAGE # 1 PERFS @ 4244 PSI 15.6 BPM. TREATED PERFS W/ 18532 GALS 15% HCL ACID. DROPPED 80 BIO BALLS. 16 EVERY 3150 GALS TTL 5 DROPS. AVG RATE 39.7 BPM, MAX RATE 48.7 BPM. AVG PRESS 4198 PSI, MAX PRESS 6461 PSI. I.S.I.P. 2952 PSI, F.G. .77. 5 MIN 2598 PSI, 10 MIN 2438 PSI, 15 MIN 2270 PSI SHUT IN WELL. 1053 BBLs TO RECOVER. TURNED WELL OVER TO WIRELINE.
	11:00 14:00	3.00	STG02	21		P		RU WIRELINE PRESSURE TEST LUBRICATOR AND BOP @ 250 PSI LOW AND 4000 PSI HIGH HELD. RIH SET CBP @ 8317' W/ 30 PSI @ 12:57. PERFORATED STAGE # 2 FROM 8302' TO 8172'. USING 3 1/8, 22.7 GM, 120 DEGREE PHASING, 3 SPF GUNS. ALL PERFS CORRELATED TO CUTTERS RADIAL CBL GR/CCL LOG DATED 1-20-2015. STARTING PRESSURE 30 PSI, FINAL PRESSURE 0 PSI. PULLED OUT TURNED WELL OVER TO FRAC CREW.

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity Code	Sub	OP Code	MD from (usft)	Operation
	14:00 14:45	0.75	STG02	35		P		OPENED WELL W/ 140 PSI. BREAK DOWN STAGE # 2 PERFS @ 2788 PSI 8 BPM. TREATED PERFS W/ 10788 GALS 15% HCL ACID.DROPPED 64 BIO BALLS. 16 EVERY 3000 GALS TTL 4 DROPS. AVG RATE 32.8 BPM, MAX RATE 48.6 BPM. AVG PRESS 2483 PSI, MAX PRESS 4069 PSI. I.S.I.P. 1547 PSI, F.G. .62. 5 MIN 1150 PSI, 10 MIN 939 PSI, 15 MIN 786 PSI. SHUT IN WELL. 824 BBLS TO RECOVER. TURNED WELL OVER TO WIRELINE.
	14:45 17:00	2.25	STG03	21		P		RU WIRELINE. RIH SET CBP @ 7926' W/ 300 PSI @ 4:00 PM. PERFORATED STAGE # 3 FROM 7911' TO 7701'. USING 3 1/8, 22.7 GM, 120 DEGREE PHASING, 3 SPF GUNS. ALL PERFS CORRELATED TO CUTTERS RADIAL CBL GR/CCL LOG DATED 1-20-2015. STARTING PRESSURE 300 PSI, FINAL PRESSURE 100 PSI. PULLED OUT. WHILE PULLING GUN INTO LUBRICATOR, PULLED OVER. PULLED OUT OF CABLE HEAD.
	17:00 18:00	1.00	RDMO	02		N		LAY DOWN LUBRICATOR, ND BOP , CALL FOR BRAIDED LINE TRUCK
	18:00 22:30	4.50	WLWORK	42		N		WAIT ON FISHING TOOLS AND WIRELINE TRUCK.
	22:30 2:30	4.00	WLWORK	52		N		RU BRAIDE LINE TRUCK RIH W/ 5 3/4" OVER SHOT AND 1 11/16" GRAPPLE, LATCHED ONTO FISH .PULLED OUT W/ OVERSHOT AND CCL, PERF GUN AND SETTING TOOL. WHILE PUMPING 180 BBLS DOWN CSG TOOK 140 BBLS TO FILL. LD FISH AND RD BRAIDED LINE TRUCK. CLOSED IN WELL CLOSED AND LOCKED FRAC VALVES. 3 BARRIERS. CLOSED CSG VALVES AND INSTALLED NIGHT CAPS 2 BARRIERS. SDFN.
10/16/2016	6:00 7:30	1.50	STG03	28		P		CREW TRAVEL HELD SAFETY MEETING ON PRESSURE TESTING LINES. FILLED OUT AND REVIEWED JSA. PRESSURE TEST LINES @ 9005.
	7:30 8:30	1.00	STG03	35		P		OPENED WELL W/ 0 PSI. FILLED CSG W/ 100 BBLS. BREAK DOWN STAGE # 3 PERFS @ 2345 PSI 8.1 BPM. TREATED PERFS W/ 17801 GALS 15% HCL ACID.DROPPED 94 BIO BALLS. 18 EVERY 3500 GALS TTL 5 DROPS. AVG RATE 31.8 BPM, MAX RATE 50.1 BPM. AVG PRESS 2951 PSI, MAX PRESS 3057 PSI. I.S.I.P. 1238 PSI, F.G. .59. 5 MIN 0 PSI. SHUT IN WELL. 1034 BBLS TO RECOVER
	8:30 10:30	2.00	RDMO	02		P		RD FRAC EQUIPMENT. MOVED OFF LOCATION.
	10:30 16:00	5.50	WHDTR	16		P		WELL DEAD. ND FRAC STACK TO 7 1/16" MASTER VALVE NU 5M BOPE AND ANNULAR. PRESSURE TEST BLIND RAMS. 7 1/16" MASTER VALVE LEAKING, INSTALLED HANGER AND TWC. BARRIER 1 FLUID, BARRIER 2 HANGER W/ TWC. PRESSURE TEST PIPE RAMS @ 250 LOW AND 4000 PSI HIGH, PRESSURE TEST ANNULAR @ 250 LOW AND 3000 PSI HIGH. WHILE WAITING ON 7 1/16" 10M FRAC VALVE, ND BOP AND ANULAR PICKE THEM UP W/ RIG, ND FRAC VALVE. NU NEW 7 1/16" 10M FRAC VALVE. NU BOP AND HYDRIL. PRESSURE TEST FRAC VLAVE AND BLIND RAMS @ 4000 PSI HIGH AND 250 PSI LOW, RU RIG FLOOR. CLOSED IN WELL CSG BARRIER 1 FRAC VALVE, BARRIER 2 BLIND RAMS. CSG VLAVES CLOSED AND NIGHT CAPS INSTALLED.
10/17/2016	6:00 6:00	24.00	WOR	18		P		NO ACTIVITY
10/18/2016	6:00 8:30	2.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON WELL CONTROL. FILLED OUT AND REVIEWED JSA.
	8:30 9:30	1.00	WOR	06		P		450 CSIP. BLED DOWN GAS. PUMPED 100 BBLS 2% KCL WELL OPENED WELL
	9:30 12:30	3.00	WOR	39		P		TALLIED AND RIH W/ 6" BIT, BIT SUB, 2-JTS 2 7/8 L-80 EUE TBG, SN AND 156-JTS 2 7/8 L-80 EUE TBG. TAGGED CBP SET @ 7926' (7951'TBG TALLY)
	12:30 14:00	1.50	WOR	42		P		WAIT ON TUBING.
	14:00 15:00	1.00	WOR	39		P		CONTINUED RIH W/ 14-JTS 2 7/8 L-80 EUE TBG. TAGGED CBP SET @ 7926' (7951'TBG TALLY). RU POWER SWIVEL.

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity Code	Sub	OP Code	MD from (usft)	Operation
	15:00 18:00	3.00	WOR	39		P		PUMPED 200 BBLS 2% KCL DOWN CSG BREAK REVERSE CIRCULATION. SLOWED PUMP RATE TO 7 BPM RETURNING 3 BPM. DRILL OUT CBP RIH TO 8002'. CIRCULATE TBG CLEAN. RD POWER SWIVEL, TOOH W/ 12-JTS 2 7/8 L-80 EUE TBG EOT @ 7611'. CLOSED IN WELL. CSG BARRIER 1 PIPE RAMS, BARRIER 2 ANNULAR, TBG BARRIER 1 TIW VALVE, BARRIER 2 NIGHT CAP. CLOSED CSG VALVES AND INSTALLED NIGHT CAPS. SDFN.
10/19/2016	6:00 7:30	1.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON DRILLING CBP. FILLED OUT AND REVIEWED JSA.
	7:30 8:30	1.00	WOR	39		P		0 TSIP, 40 CSIP. BLED DOWN CSG. OPENED WELL RIH W/ 23-JTS 2 7/8 L-80 EUE TBG. TAGGED CBP SET @ 8317' (8344' TBG TALLY). RU POWER SWIVEL
	8:30 13:00	4.50	WOR	10		P		PUMPED 85 BBLS 2% KCL DOWN CSG @ 10 BPM. BREAK REVERSE CIRCULATION. SLOWED PUMP RATE DOWN TO 6 BPM AND RETURNING 3 BPM. DRILLED THRU CBP LOST CIRCULATION, INCREASED RATE TO 10 BPM RETURNING 2 BPM. CIRCULATE TBG CLEAN. CONTINUED RIH W/ 9-JTS 2 7/8 L-80 EUE TBG. TAGGED REMAINS OF 7" CBP AND LT 8622' (8649' TBG TALLY). PUMPED 100 BBLS BREAK REVERSE CIRCULATION. FINISHED DRILLING REMAINS OF CBP. PUMPING 10 BPM AND RETURNING 2 BPM. LOST TTL 1103 BBLS. RD POWER SWIVEL.
	13:00 17:30	4.50	WOR	39		P		TOOH W/ 263-JTS 2 7/8 L-80 EUE TBG, SN, 2-JTS 2 7/8 L-80 EUE TBG, BIT SUB AND 6" BIT. RIH W/ 4 1/8" BIT, BIT SUB, 10-JTS 2 3/8 L-80 EUE TBG, X-OVER AND 203-JTS 2 7/8 L-80 EUE TBG. EOT @ 6956'. CLOSED IN WELL. CSG BARRIER 1 PIPE RAMS, BARRIER 2 ANNULAR, TBG BARRIER 1 TIW VALVE, BARRIER 2 NIGHT CAP. CLOSED CSG VALVES AND INSTALLED NIGHT CAPS. SDFN.
10/20/2016	6:00 8:30	2.50	WOR	28		P		CREW TRAVEL. HAD ROD SCHOOL W/ WEATHERFORD ALS.
	8:30 9:30	1.00	WOR	28		P		HELD SAFETY MEETING ON RIGGING UP POWER SWIVEL. FILLED OUT AND REVIEWED JSA.
	9:30 11:00	1.50	WOR	39		P		320 TSIP, 320 CSIP. BLED DOWN GAS. PUMPED 60 BBLS DOWN CSG. 20 BBLS DOWN TBG. WELL ON VACUUM. OPENED WELL RIH W/ 52-JTS 2 7/8 L-80 EUE TBG. TAGGED LINER @ 8622' (8649 TBG TALLY). RU POWER SWIVEL.
	11:00 15:00	4.00	WOR	10		P		PUMPED 105 BBLS DOWN CSG BREAK REVERSE CIRCULATION. FINISHED DRILLING 7" CBP AT LINER TOP. PUMPING 10 BPM AND RETURNING 2.2 BPM. CONTINUED RIH CLEANED OUT TO PBTD 8822' CMT TOP, 5' IN ON JT # 262 (8842' TBG TALLY). CIRCULATE TBG CLEAN. RD POWER SWIVEL.
	15:00 17:30	2.50	WOR	39		P		TOOH W/ 183 JTS 2 7/8 L-80 EUE TBG, EOT @ 3008', CLOSED IN WELL. CSG BARRIER 1 PIPE RAMS, BARRIER 2 ANNULAR, TBG BARRIER 1 TIW VALVE, BARRIER 2 NIGHT CAP. CLOSED CSG VALVES AND INSTALLED NIGHT CAPS. SDFN.
10/21/2016	6:30 7:30	1.00	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON WELL CONTROL. FILLED OUT AND REVIEWED JSA.
	7:30 8:30	1.00	WOR	06		P		200 TSIP, 200 CSIP. BLED OFF GAS. PUMPED 8 BBLS DOWN TBG. WELL ON VACUUM. OPENED WELL.
	8:30 9:30	1.00	WOR	39		P		TOOH W/ 80-JTS 2 7/8 L-80 EUE TBG, X-OVER, 10-JTS 2 3/8 L-80 EUE TBG, BIT SUB AND 4 1/8 BIT.

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity Code	Sub	OP Code	MD from (usft)	Operation
	9:30 16:00	6.50	WOR	39		P		RIH W/ SOLID 5 3/4 NO-GO, 2-JTS 2 7/8 L-80 EUE TBG, 5 1/2 PBGA, 4' 2 7/8 N-80 EUE TBG SUB, 2' 2 7/8 N-80 EUE TBG SUB, MECH SN, 2 7/8" X 2 1/4" X 40' TBG PUMP BARREL, 4' 2 7/8 N-80 EUE TBG SUB. RU HYDRO TESTER, RIH HYDRO TESTING @ 8500 PSI W/ 4-JTS 2 7/8 L-80 EUE TBG, KLX ARROWSET TPYE TAC, 110-JTS 2 7/8 L-80 EUE TBG. PULLED HYDRO TESTING TOOLS, RIH W/ 2 7/8 EUE X 3 1/2 EUE X-OVER, 45-JTS 3 1/2 L-80 EUE R2 ULTRATUBE TBG, 3 1/2 EUE X 2 7/8 EUE X-OVER. CONTINUED RIH HYDRO TESTING @ 8500 PSI W/ 98-JTS 2 7/8 L-80 EUE TBG. FOUND NO LEAKS. RD HYDRO TESTER.
	16:00 20:30	4.50	WOR	16		P		RD RIG FLOOR, ND ANNULAR, BOP AND 7 1/16 10M FRAC VALVE, SET KLX ARROWSET TYPE TAC @ 8297' SN @ 8477' AND EOT @ 8583'. NU WELLHEAD. RD RIG, PLUMBED IN FLOWLINE. LEFT CSG OPEN TO TREATER ON 18/64 CHOKE. CLOSED IN TBG. BARRIER 1 FLUID, BARRIER 2 NIGHT CAP. CLOSED FLOWLINE VALVES SDFN.
10/22/2016	6:00 10:00	4.00	WOR	42		P		WAIT ON COROD RIG. HELD SAFETY MEETING ON RIGGING UP COROD RIG. FILLED OUT AND REVIEWED JSA.
	10:00 11:30	1.50	MIRU	01		P		MIRU COROD RIG WHILE FLUSHING TBG W/ 50 BBLS 2% KCL. DROPPED STANDING VALVE, PUMPED 35 BBLS 25 KCL, PUMPED 10 GALS CORROSION INHIBITOR AND 25 BBLS 2% KCL. STANDING VALVE DIDN'T SEAT.
	11:30 13:00	1.50	WOR	39		P		2 1/4" X 5' PLUNGER, 1 1/2" X 40' POLISH ROD, STAB SUB, TMX-120 LEFT HAND ON/OFF TOOL, 1150' SE # 6, 4647' SE # 5, 1008' SE # 6, 842' SE # 7 AND 725' SE # 8 COROD. SPACED OUT ROD W/ 1-6", 1-4", 1-2" X 1" SUBS. PU POLISH ROD FILLED TBG W/ 10 BBLS PRESSURE AND STROKE TEST @ 1000 PSI HELD.
	13:00 14:30	1.50	RDMO	02		P		RD COROD RIG, SLID IN ROTA-FLEX. PUT WELL ON PRODUCTION.
12/21/2016	13:00 14:30	1.50	MIRU	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; CO-ROD OPERATION
	14:30 19:30	5.00	MIRU	01		P		SLIDE ROTO FLEX MIRU PUMP 60 BBLS OF HOT 2% KCL WATER DOWN CSG ATTEMPT TO RETRIEVE STANDING VALVE FAILED UNABLE TO MOVE POLISH ROD CONTINUE PUMPING HOT 2% KCL DOWN CSG TTL OF 200 BBLS WORKING POLISH ROD NO MOVEMENT SECURE WELL SDFN HAUL IN WATER AM DOUBLE PUMP
12/22/2016	6:00 7:00	1.00	WOR	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; CO-ROD OPERATIONS...START PUMP HOT 2% KCL WATER DOWN CSG AT 05:00 PUMP 500 BBLS
	7:00 9:33	2.55	WOR	39		P		CONTINUE WORKING TO FREE CO-ROD FAILED RELEASE ON/OFF TOOL
	9:33 11:50	2.28	PRDHEQ	39		P		TOH w CO-ROD RDMO
	11:50 12:45	0.92	MIRU	01		P		MIRU PEAK 1900
	12:45 13:50	1.08	WLWORK	21		P		MIRU WIRELINE TIH PERFORATE TBG AT 8385' TOH R/D WIRELINE
	13:50 16:38	2.80	WOR	16		P		N/D WELL HEAD N/U AND TEST BOP
	16:38 18:00	1.37	WOR	39		P		RELEASE 1/4 TURN TOOL SOH w 40-JTS OF 2-7/8" TBG SECURE WELL CLOSE AND LOCK BOP BARRIER 1 INSTALL TIW VALVE w NIGHT CAP BARRIER 1 & 2 OPEN TO SALES SDFN
12/23/2016	6:00 7:00	1.00	WOR	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; RIG OPERATIONS
	7:00 12:45	5.75	WOR	39		P		CSIP 100 PSI TSIP 50 PSI CONTINUE TOH w 58-JTS CHANGE HANDLING TOOLS FOR 3-1/3" TBG TOH w 45-JTS OF 3-1/2" TBG CHANGE HANDLING TOOLS TOH w 110-JTS OF 2-7/8" TBG L/D POLISH ROD PLUNGER STUCK IN BARREL L/D BHA SEND BARREL IN TO BE REPAIRED OR REPLACED

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity Code	Sub	OP Code	MD from (usft)	Operation
	12:45 15:30	2.75	WOR	39		P		P/U 7" PLUG AND 7" PKR MIRU HYDROTESTER TIH TEST TBG TO 8500 PSI w 43-JTS OF 2-7/8" TBG EOT 1406' SECURE WELL CLOSE AND LOCK BOP BARRIER 1 INSTALL TIW VALVE w NIGHT CAP BARRIER 1 & 2 SHUT DOWN TO SPLICE SANDLINE
12/24/2016	6:00 7:00	1.00	WOR	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; RIG OPERATIONS
	7:00 13:30	6.50	WOR	39		P		CONTINUE HYDROTESTING TBG TTL OF 260- JTS OF 2-7/8" TBG L/D 2-JTS OF 2-7/8" TBG FAILED TEST RD HYDROTESTER
	13:30 13:54	0.40	WOR	39		P		SET 7" TS PLUG AT 8450' L/D 1-JT OF 2-7/8" TBG SET PKR 8425' TEST TOOLS TO 1500 PSI TOH w 11-JTS OF 2-7/8" TBG SET 7" PKR AT 8098'
	13:54 18:00	4.10	WOR	38		P		R/U SWABBING TOOLS AND TEST 800 PSI MAKE 8 SWAB RUNS TAGGING FLUID AT 500' SWAB DOWN TO 800' TTL FLUID SWABBED 92 BBLS OF WATER NO OIL SMALL AMOUNT OF GAS R/D LUBRICATOR AND SWAB TOOLS SECURE WELL CLOSE AND LOCK BOP BARRIER 1 INSTALL TIW VALVE w NIGHT CAP BARRIER 1 & 2 SDFH
12/28/2016	6:00 7:00	1.00	WOR	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; RIG OPERATIONS
	7:00 14:30	7.50	FB	17		P		CSIP 280 PSI BLEED OFF CSG SURFACE CSIP 250 PSI BLEED RIGHT OFF TSIP 260 PSI ATTEMPT TO BLEED OFF FLOWING 1/4 BPM (15 BBLS/HR) AT 20 PSI WATER NO OIL TRACE OF GAS
	14:30 6:00	15.50	FB	17		P		TURN WELL OVER TO FLOW BACK CREW FLOW BACK WELL TO FLOW BACK TANK 205 BBLS OF WATER TRACE OF OIL
12/29/2016	6:00 7:00	1.00	WOR	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; RIG OPERATIONS
	7:00 9:00	2.00	FB	17		P		SCSIP 160 PSI CSIP 60 PSI TBG FLOWING TO FLOW BACK TANK DECISION WAS MADE TO CONTINUE FLOWING WELL CLOSE CSG VALVES w NIGHT CAP BARRIER 1 & 2 RELEASE CREW TURN WELL OVER TO FLOW BACK CREW
	9:00 6:00	21.00	FB	17		P		FLOW BACK 350 BBLS OF WATER NO OIL
12/30/2016	6:00 7:00	1.00	WOR	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REIVEW JSA TOPIC; RIG OPERATIONS
	7:00 8:14	1.23	WOR	39		P		SCSIP 160 PSI CSIP 60 PSI BLEED OFF PRESSURE R/U LINES ON TBG ESTABLISH INJECTION RATE 1.5 BPM AT 300 PSI
	8:14 11:30	3.27	WOR	39		P		RELEASE 7" PKR TOH w 249-JTS OF 2-7/8" TBG L/D PKR
	11:30 16:00	4.50	WLWORK	26		P		MIRU WIRELINE DUMP BAIL 15' OF SAND SET 7" CCR AT 8130' RDMO WIRELINE
	16:00 18:00	2.00	WOR	39		P		P/U STINGER TIH w 199-JTS OF 2-7/8" 6510' SECURE WELL CLOSE AND LOCK BOP BARRIER 1 INSTALL TIW VALVE w NIGHT CAP BARRIER 1 & 2 SDFN
12/31/2016	6:00 7:00	1.00	WOR	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REIVEW JSA TOPIC; RIG AND CEMENT OPERATIONS
	7:00 9:00	2.00	WOR	39		P		TSIP 0 PSI CSIP 60 PSI BLEED OFF PRESSURE TIH w 52-JTS SPACE OUT STING INTO CCR AT 8130' MIRU CEMENT
	9:00 12:00	3.00	WOR	18		P		HSM PRE JOB WITH CREW FILL CSG w 150 BBLS OF 2% KCL WATER ESTABLISH INJECTION RATE 2.5 BPM AT 980 PSI PUMP 5 OF FRESH WATER SPACER 25 BBLS OF CMT w 2% CACL. 46 BBLS OF CLASS G CEMENT DISPLACE w 47.75 BBLS STING OUT OF CCR w 2400 PSI REVERSE CIRC w 206 BBLS OF 2% KCL WATER
	12:00 14:20	2.33	WOR	39		P		RDMO CEMENT EQUIPMENT TOH w 251-JTS OF 2-7/8" TBG L/D STINGER
	14:20 17:30	3.17	WOR	39		P		P/U 6" BIT AND BIT SUB TIH w 215-JTS OF 2-7/8" TBG EOT 7030' SECURE WELL CLOSE AND LOCK BOP BARRIER 1 INSTALL TIW VALVE w NIGHT CAP BARRIER 1 & 2 SDFH

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity Code	Sub	OP Code	MD from (usft)	Operation
1/3/2017	6:00 7:00	1.00	WOR	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REIVEW JSA TOPIC; RIG OPERATIONS
	7:00 8:34	1.57	WOR	39		P		CSIP 60 PSI TSIP 60 PSI BLEED OFF PRESSURE FINISH TIH w 36-JTS OF 2-7/8" TBG TAG UP AT 8125'
	8:34 18:00	9.43	WOR	72		P		R/U POWER SWIVEL ESTABLISH CIRC w 300 BBLS OF 2% KCL WATER DRILL CCR AT 8130' DRILL CEMENT TO 8168' CIRC WELL CLEAN HANG BACK POWER SWIVEL TOH w 10-JTS OF 2-7/8" TBG 7516' SECURE WELL CLOSE AND LOCK BOP BARRIER 1 INSTALL TIW VALVE w NIGHT CAP BARRIER 1 & 2 SDFN FLUID LOSS 520 BBLS
1/4/2017	6:00 7:00	1.00	WOR	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REIVEW JSA TOPIC; RIG OPERATIONS
	7:00 7:30	0.50	WOR	39		P		CSIP VACUUM PSI TSIP VACUUM PSI TIH w 10-JTS OF 2-7/8" TBG TAG UP AT 8168'
	7:30 17:13	9.72	WOR	72		P		R/U POWER SWIVEL ESTABLISH CIRC w 280 BBLS OF 2% KCL WATER CONTINUE DRILLING CEMENT FELL THROUGH AT 8335' C/O TO RPB AT 8450' CIRC WELL CLEAN R/D POWER SWIVEL
	17:13 18:30	1.28	WOR	39		P		TOH w 30-JTS OF 2-7/8" TBG EOT 7490' SECURE WELL CLOSE AND LOCK BOP BARRIER 1 INSTALL TIW VALVE w NIGHT CAP BARRIER 1 & 2 SDFN FLUID LOSS 300 BBLS
1/5/2017	6:00 7:00	1.00	WOR	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REIVEW JSA TOPIC; RIG OPERATIONS
	7:00 9:18	2.30	WOR	39		P		CSIP VACUUM TSIP VACUUM TOH w 6" BIT
	9:18 11:39	2.35	WOR	39		P		P/U 7" PKR TIH w 249-JTS OF 2-7/8" TBG SET PKR AT 8104'
	11:39 12:10	0.52	WOR	23		P		FILL TBG w 6 BBLS OF 2% KCL WATER TEST SQUEEZE TO 1000 PSI FOR 10 MIN GOOD TEST
	12:10 15:25	3.25	WOR	23		P		R/U SWAB TIH SWAB TBG DOWN TO PSN AT 8100' IN 8 RUNS
	15:25 16:25	1.00	WOR	23		P		SWAB FROM 8100' NO FLUID ENTRY
	16:25 17:25	1.00	WOR	23		P		SWAB FROM 8100' NO FLUID ENTRY
17:25 18:00	0.58	WOR	23		P		SECURE WELL CLOSE AND LOCK BOP BARRIER 1 INSTALL TIW VALVE w NIGHT CAP BARRIER 1 & 2 DAIN LINES SDFN	
1/6/2017	6:00 7:00	1.00	WOR	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REIVEW JSA TOPIC; RIG OPERATIONS
	7:00 9:00	2.00	WOR	23		P		TSIP 50 PSI CSIP VACUUM R/U AND SWAB TBG TO 8100 PSN PULL 1/4 BBL OF OIL
	9:00 9:49	0.82	WOR	23		P		2nd SWAB FROM 8100' NO FLUID ENTRY
	9:49 12:03	2.23	WOR	39		P		R/D SWAB EQUIPMENT R/U AND FILL TBG w 40 BBLS OF 2% KCL WATER RELEASE 7" PKR TIH RETRIEVE 7" PLUG AT 8450'
	12:03 15:35	3.53	WOR	39		P		TOH L/D 44-JTS OF 2-7/8" TBG WORK STRING STAND BACK 212-JTS OF 2-7/8" TBG L/D TOOLS
	15:35 20:00	4.42	WOR	39		P		P/U 5-3/4" NO-GO 2-JTS OF 2-7/8" TBG 5-1/2" PBGA 4' X 2-7/8" TBG SUB 2' X 2-7/8" TBG SUG MECH PSN 2-1/2" X 1-1/4" X 40' PUMP BARREL 4' X 2-7/8" TBG SUB 4-JTS OF 2-7/8" TBG WELL STARTED TO FLOW SECURE WELL FLOW OIL GAS AND WATER TO FLOW BACK TANK KILL WELL w 115 BBLS OF 10# BRINE WATER CONTINUE IN HOLE w 1/4 TURN TOOL TIH w 110-JTS OF 2-7/8" TBG EOT 3617' SECURE WELL CLOSE AND LOCK BOP BARRIER 1 INSTALL TIW VALVE w NIGHT CAP BARRIER 1 & 2 DAIN LINES SDFN
1/7/2017	6:00 7:00	1.00	WOR	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REIVEW JSA TOPIC; RIG OPERATIONS
	7:00 10:41	3.68	WOR	39		P		CSIP 700 PSI TSIP 100 PSI BLEED OF WELL KILL WELL w 65 BBLS OF 10# BRINE WATER TIH w 44-JTS OF 3-1/2" TBG CHANGE HANDLING TOOLS CONTINUE TIH w 99-JTS OF 2-7/8" TBG SPACE OUT AND SET 1/4" TURN TOOL w 25K TENSION
	10:41 13:30	2.82	WOR	16		P		KILL WELL N/D BOP N/U WELL HEAD INSTALL CAP STRING
	13:30 16:00	2.50	RDMO	02		P		RDMO RIG MIRU CO-ROD RACK OUT PUMP AND LINES CLEAN LOCATION DROP AND FLUSH STANDING VALVE

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity Code	Sub	OP Code	MD from (usft)	Operation
	16:00 18:00	2.00	WOR	39		P		P/U 5' X 2 1/4" PLUNGER 40' POLISH ROD TIH w CO-ROD P/U POLISH ROD SPACE OUT PLUNGER FILL TBG w 16 BBLs OF HOT 2% KCL WATER TEST AND STROKE TEST TO 1000 PSI GOOD TEST
	18:00 23:00	5.00	RDMO	02		P		RDMO CO-ROD UNIT SLIDE ROTO FLEX HANG OFF RODS THAW OUT TREATER LINES TURN WELL OVER TO PRODUCTION
1/17/2017	7:00 8:00	1.00	MIRU	01		P		TRAVEL TO LOC
	8:00 9:00	1.00	MIRU	01		P		HSM WRITE AND REVIEW JSA= SLIPS TRIPS AND FALLS, PULLING PLUNGER
	9:00 12:00	3.00	PRDHEQ	03		P		WORK 1 HR TO CATCH STANDING VALVE POOH W/ PLUNGER AND LAY PLUNGER DOWN, J ON BTM OF PLUNGER BROKE W/ A PIECE STUCK IN TRAVELING VALVE
	12:00 15:30	3.50	PRDHEQ	03		N		WAIT ON WIRE LINE
	15:30 18:00	2.50	PRDHEQ	03		P		MIRU W/L MU 1-3/4 MAGNET W/ SINKER BARS RIH TO S/N 8477' TAG SN TWICE POOH, DIDNT POOH W/ ANY PIECES RUN BACK IN TAG S/N TWICE POOH, NOTHING ON MAGNET RD W/L CLOSE VALVES BULL PLG TUB AND CASING SDFN
1/18/2017	6:00 7:00	1.00	INARTLT	03		P		TRAVEL TO LOC HSM WRITE AND REVIEW JSA=HOT OIL RUNNING RODS
	7:00 8:30	1.50	INARTLT	03		N		HOT OIL TRUCK BROKE DOWN
	8:30 9:30	1.00	INARTLT	03		P		PUMP 60 BBLs HOT KCL DOWN CSG POUR ROD CHEM DOWN TUB PU NEW PLUNGER MU ON COROD
	9:30 12:30	3.00	INARTLT	03		P		RIH W/ COROD SPACE OUT TEST PUMP TO 1000 PSI
	12:30 15:30	3.00	UNINARTLT	03		P		STROKE PUMP WOULDNT PUMP RIH PUSH ON SV PRESS UP TO 1000 PSI PU STROKE NO PUMP TRY TO CATCH SV SEVERAL TIMES COULDNT CATCH POOH W/ PLUNGER AND TRAVLIN VALVE
	15:30 17:00	1.50	UNINARTLT	03		P		TEAR APART TRAVLING VALVE FOUND PIECE OF CBP, FILL TU PRESS UP TO 1000 PSI LOST 150 PSI 3 MIN TRIED IT TWICE SAME LOSS, RD COROD RIG SIW W/ BULL PLUG, WAIT ON PULLING UNIT