

Results of Directional Survey

API number:	30-025-40581		
OGRID:		Operator:	COG PRODUCTION, LLC
		Property:	TRISTE DRAW 5 STATE # 2H

surface	ULSTR:	C	05	T 24S	R 32E
				360 FNL	1750 FWL

BH Loc	ULSTR:	N	05	T 24S	R 32E
12749	MD	8534.9	TVD	365 FSL	2077 FWL
				4915 FNL	

Top Perf/OH	ULSTR:	C	05	T 24S	R 32E
8652	MD	8447.8	TVD	837 FNL	1763 FWL

Bot Perf/OH	ULSTR:	N	05	T 24S	R 32E
12660	MD	8528.0	TVD	453 FSL	2065 FWL
				4827 FNL	

	MD	N/S	E/W	VD
	8621	-446.80	11.60	8439
TOP PERFS/OH	8652	-476.50	12.80	8447.80
	8652	-476.50	12.80	8447.80
	12624	-4431.60	310.60	8525.40
BOT PERFS/OH	12660	-4467.23	315.14	8528.02
	12701	-4507.80	320.30	8531.00

NEXT TO LAST	12701	-4507.80	320.30	8531.00
LAST READING	12749	-4555.30	326.50	8534.90
TD	12749	-4555.30	326.50	8534.90

Surface Location	360	FN	1750	FW
Projected BHL	4915	FN	2077	FW
Location of				
Top Perfs/OH	837	FN	1763	FW
Bottom Perfs/OH	4827	FN	2065	FW

SUMMARY of Subsurface Locations

Surface Location	C-05-24S-32E	360	FN	1750	FW	Vert. Depth
Top Perfs/OH	C-05-24S-32E	837	FN	1763	FW	8447.80
Bottom Perfs/OH	N-05-24S-32E	4827	FN	2065	FW	8528.02
Projected TD	N-05-24S-32E	4915	FN	2077	FW	8534.90

DEC 02 2013



COG OPER, LLC
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ARTESIA WEST

PO Box 1370
Artesia, NM 88211-1370
(575) 748-1288

HOBBS OCD

OCT 31 2013

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July 31, 2013

COG, LLC
One Concho Center
600 W. Illinois Ave.
Midland, TX 79701

RE: Triste Draw 5 Federal Com #2H
360' FNL & 1750' FWL
Sec. 5, T24S, R32E
Lea County, New Mexico

Dear Sir,

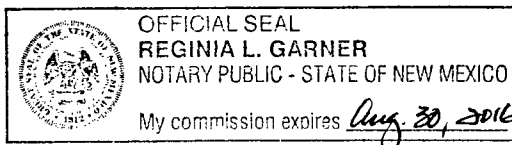
The attached is the Deviation Survey for the above captioned well.

Very truly yours,

Eddie LaRue
Operations Manager

State of New Mexico }
County of Eddy }

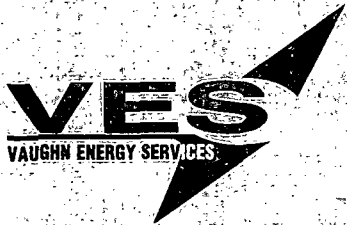
The foregoing was acknowledged before me this 31st day of July, 2013.

Notary Public

Triste Draw 5 Federal Com #2H

Date	Depth	Dev	Dir	TVD	Horiz Disp
7/2/2013	230	0.20			
7/2/2013	442	0.10			
7/2/2013	721	0.50			
7/2/2013	1022	0.60			
7/4/2013	1123	1.60	257.20	1122.85	
7/4/2013	1153	1.60	255.30	152.84	
7/4/2013	1245	1.10	219.60	1244.82	
7/4/2013	1336	1.40	203.60	1335.80	
7/4/2013	1519	1.20	188.60	1518.73	
7/5/2013	1802	1.30	179.30	1801.67	
7/5/2013	2089	0.40	91.10	2088.60	
7/5/2013	2184	1.00	63.00	2183.60	
7/5/2013	2374	1.50	61.20	2373.55	
7/5/2013	2565	1.30	72.30	2564.50	
7/5/2013	2660	1.80	71.60	2659.47	
7/5/2013	2756	1.10	72.10	2755.44	
7/5/2013	2947	1.10	82.80	2946.41	
7/5/2013	3042	1.70	86.20	3041.38	
7/6/2013	3138	1.30	94.20	3137.35	
7/6/2013	3233	0.40	126.40	3232.34	
7/6/2013	3329	0.50	209.40	3328.30	
7/6/2013	3424	0.60	221.90	3423.30	
7/6/2013	3519	0.60	223.10	3518.30	
7/6/2013	3710	0.80	21.10	3709.31	
7/6/2013	3806	0.80	189.00	3805.30	
7/7/2013	3901	0.90	179.30	3900.29	
7/7/2013	4092	1.80	145.00	4091.24	
7/7/2013	4187	1.10	120.80	4186.20	
7/7/2013	4283	0.70	132.20	4282.20	
7/7/2013	4474	1.20	142.90	4473.10	
7/7/2013	4569	0.60	140.00	4568.13	
7/7/2013	4665	0.50	153.10	4664.13	
7/10/2013	4883	0.20			
7/11/2013	5312	0.60			
7/11/2013	5756	0.10			
7/11/2013	6198	0.50			
7/11/2013	6644	0.70			
7/11/2013	7088	0.60			
7/12/2013	7531	0.70			
7/13/2013	7954	1.30	185.70	7953.04	
7/13/2013	7986	4.80	170.50	7984.99	
7/14/2013	8018	9.50	166.30	8016.73	
7/14/2013	8081	16.20	165.30	807.80	

Date	Depth	Dev	Dir	TVD	Horiz Disp
7/14/2013	8145	22.80	188.80	8138.45	
7/14/2013	8272	37.90	178.80	8247.38	
7/15/2013	8303	40.50	179.50	8271.40	
7/15/2013	8430	56.50	178.80	8354.38	
7/15/2013	8494	60.80	177.40	8387.12	
7/15/2013	8557	65.50	176.70	8415.00	386.00
7/15/2013	8684	77.60	176.50	8455.00	507.00
7/15/2013	8779	86.40	176.30	8470.00	600.00
7/16/2013	8789	86.40	176.30	8470.16	
7/16/2013	8908	90.30	177.20	8471.20	
7/16/2013	9003	90.70	178.60	8470.37	
7/16/2013	9098	88.80	177.60	8470.00	919.00
7/16/2013	9288	88.30	175.80	8476.00	1109.00
7/16/2013	9383	89.60	175.60	8477.75	
7/16/2013	9478	87.00	174.90	8485.57	
7/16/2013	9574	86.70	175.30	8485.84	
7/17/2013	9670	90.70	174.60	8488.02	
7/17/2013	9765	92.20	173.00	8485.61	
7/17/2013	9860	87.10	173.70	8486.00	1681.00
7/17/2013	9955	85.50	174.40	8492.00	1775.00
7/18/2013	10146	87.20	176.20	8510.00	1965.00
7/18/2013	10242	90.10	175.50	8512.00	2061.00
7/18/2013	10337	90.70	175.30	8512.00	2156.00
7/18/2013	10432	90.00	174.90	8511.80	
7/18/2013	10623	90.20	173.50	8510.93	2442.81
7/18/2013	10718	89.10	173.20	8511.51	
7/19/2013	10514	89.70	173.90	8512.52	
7/19/2013	10909	89.90	174.60	8512.85	
7/19/2013	11004	89.40	177.90	8513.43	2823.60
7/19/2013	11098	89.90	178.30	8514.01	2917.51
7/19/2013	11194	89.60	178.10	8514.42	3013.42
7/20/2013	11289	89.30	177.60	8515.34	
7/20/2013	11480	89.40	177.20	8519.08	
7/20/2013	11575	88.50	177.00	8520.82	
7/21/2013	11765	89.70	177.00	8518.50	
7/21/2013	11956	91.30	177.90	8517.68	
7/21/2013	12052	89.30	175.10	8517.17	
7/21/2013	12147	88.80	174.60	8518.75	
7/21/2013	12242	90.30	173.50	8519.49	4060.92
7/21/2013	12338	90.00	173.30	8519.24	4156.85
7/22/2013	12433	91.00	174.20	8518.41	
7/22/2013	12624	86.40	173.00	8525.39	



A GYRO TECHNOLOGIES INC. COMPANY

PO Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

July 24, 2013

COG Operating LLC (Concho)
One Concho Center
600 W. Illinois Avenue
Midland, TX 79701

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OCT 31 2013

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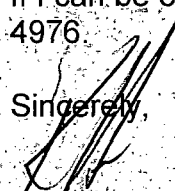
Attn: Kanicia Castillo

Re: **Triste Draw 5 Federal Com No 002H**

Please find enclosed a copy of the survey from 0' to 7,755' ran on the above referenced well.

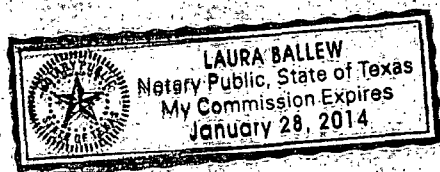
If I can be of any further service, please do not hesitate to call me at 800-606-4976.

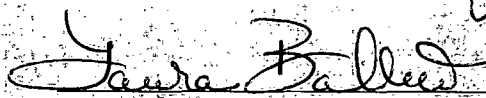
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 24th day of July, A.D., 2013, by Keith Havelka.




Laura Ballew
Notary Public, State of Texas

TRISTE DRAW 5 FEDERAL COM #2H**30-025-40581****Sec 5-T24S-R32E**

<u>Perfs</u>	<u>7 1/2% Acid (Gal)</u>	<u>Sand (#)</u>	<u>Fluid (Gal)</u>
12218-12600'	3234	287450	243558
11707-12091'	3066	286098	228606
11195-11578'	2982	281597	220542
10690-11072'	2814	280394	232722
10180-10562'	3066	278853	217476
9671-10053'	3108	218785	212898
9166-9543'	2562	294276	227094
8652-9037'	2982	311606	223188
Totals	23814	2239059	1806084

HOBBS OCD**OCT 31 2013****RECEIVED**

Company: COG Operating-Concho
Lease/Well: Triste Draw 5 Federal Com/No 002H



Rig Name: Silveroak 7
State/County: New Mexico/Lea
Latitude: 32.25, Longitude: -103.70
GRID North is 0.34 Degrees East of True North
VS-Azi: 175.71 Degrees



Depth Reference : RKB = 19 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: ...ral com #2h-de_gyro survey.ut

Minimum Curvature Method

Report Date/Time: 7/24/2013 / 09:48

Vaughn Energy Services

Midland, Texas

432-563-5444

Surveyor: Gene Heiss

Triste Draw 5 Federal Com No 002H / API 30-025-40581

HOBBS OCD

OCT 31 2013

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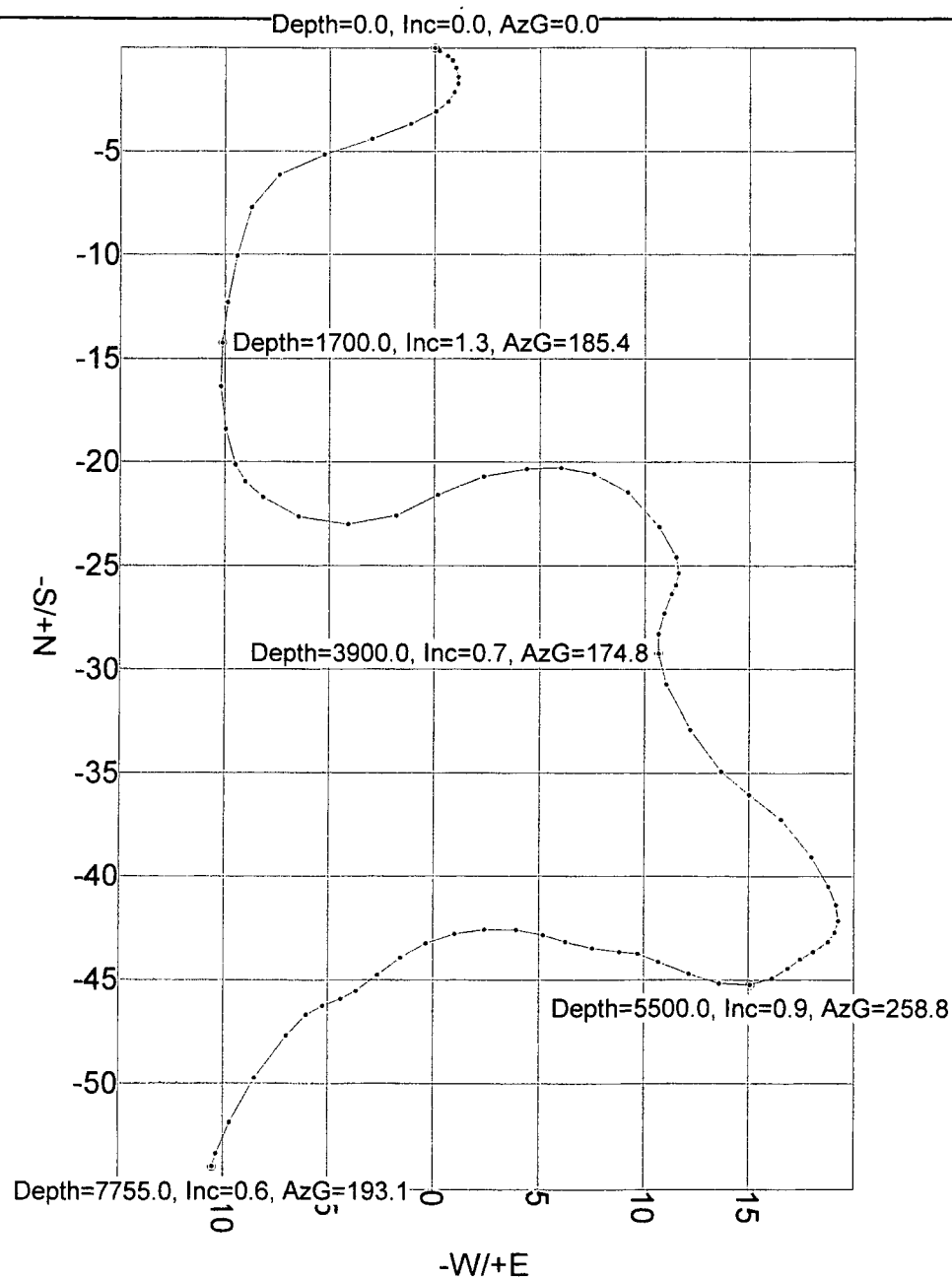
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.31	123.23	100.00	-0.15	0.23	0.17	0.27	123.23	0.31
200.00	0.20	122.86	200.00	-0.40	0.61	0.44	0.72	123.14	0.11
300.00	0.16	142.33	300.00	-0.60	0.84	0.66	1.03	125.58	0.08
400.00	0.29	160.61	400.00	-0.95	1.00	1.02	1.38	133.32	0.15
500.00	0.24	172.38	500.00	-1.40	1.12	1.48	1.79	141.41	0.07
600.00	0.14	199.20	600.00	-1.72	1.11	1.80	2.05	147.30	0.14
700.00	0.38	204.87	699.99	-2.14	0.93	2.20	2.33	156.57	0.25
800.00	0.24	224.37	799.99	-2.59	0.64	2.63	2.67	166.17	0.18
900.00	0.61	235.49	899.99	-3.04	0.05	3.04	3.05	179.02	0.38
1000.00	0.93	247.16	999.98	-3.66	-1.14	3.57	3.84	197.26	0.36
1100.00	1.31	249.11	1099.96	-4.39	-2.96	4.15	5.29	214.00	0.38
1200.00	1.46	253.10	1199.93	-5.17	-5.25	4.76	7.36	225.45	0.18
1300.00	1.28	236.90	1299.90	-6.15	-7.40	5.57	9.62	230.30	0.43
1400.00	1.20	201.74	1399.88	-7.72	-8.72	7.05	11.65	228.47	0.75
1500.00	1.61	192.22	1499.85	-10.07	-9.41	9.34	13.78	223.05	0.47
1600.00	0.97	190.74	1599.83	-12.27	-9.86	11.50	15.74	218.78	0.64
1700.00	1.31	185.43	1699.81	-14.24	-10.13	13.45	17.48	215.41	0.36
1800.00	1.10	177.82	1799.78	-16.34	-10.20	15.53	19.26	211.97	0.27

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	1.30	169.46	1899.76	-18.41	-9.96	17.62	20.93	208.40	0.26
2000.00	0.76	156.07	1999.75	-20.13	-9.48	19.37	22.25	205.22	0.58
2100.00	0.33	137.60	2099.74	-20.95	-9.02	20.22	22.81	203.28	0.46
2200.00	0.96	129.85	2199.73	-21.70	-8.18	21.03	23.19	200.64	0.63
2300.00	1.30	110.53	2299.72	-22.64	-6.47	22.09	23.55	195.95	0.50
2400.00	1.52	88.50	2399.69	-23.00	-4.09	22.63	23.36	190.07	0.58
2500.00	1.20	68.21	2499.66	-22.58	-1.79	22.38	22.65	184.54	0.57
2600.00	1.33	58.59	2599.63	-21.59	0.16	21.54	21.59	179.57	0.25
2700.00	1.42	76.99	2699.61	-20.71	2.36	20.82	20.84	173.50	0.45
2800.00	0.95	83.47	2799.58	-20.33	4.39	20.60	20.80	167.83	0.49
2900.00	0.91	92.89	2899.57	-20.28	6.00	20.67	21.15	163.52	0.16
3000.00	0.93	108.79	2999.56	-20.58	7.57	21.09	21.93	159.81	0.26
3100.00	1.21	125.64	3099.54	-21.46	9.20	22.09	23.35	156.80	0.41
3200.00	1.42	148.87	3199.52	-23.13	10.69	23.87	25.49	155.19	0.57
3300.00	0.49	157.73	3299.50	-24.59	11.50	25.38	27.14	154.95	0.94
3400.00	0.42	185.91	3399.50	-25.35	11.62	26.15	27.88	155.37	0.23
3500.00	0.27	202.60	3499.50	-25.92	11.49	26.71	28.36	156.09	0.18
3600.00	0.29	208.36	3599.49	-26.36	11.28	27.13	28.68	156.83	0.04
3700.00	0.84	198.17	3699.49	-27.28	10.93	28.02	29.39	158.16	0.56
3800.00	0.36	188.64	3799.48	-28.29	10.66	29.01	30.23	159.36	0.49
3900.00	0.69	174.78	3899.48	-29.20	10.66	29.92	31.09	159.94	0.35
4000.00	1.11	160.21	3999.47	-30.71	11.05	31.46	32.64	160.22	0.47
4100.00	1.74	147.51	4099.44	-32.90	12.19	33.72	35.09	159.67	0.70
4200.00	1.15	137.28	4199.40	-34.92	13.68	35.84	37.50	158.60	0.64
4300.00	0.86	120.98	4299.39	-36.04	15.01	37.06	39.04	157.39	0.40
4400.00	1.36	132.71	4399.37	-37.24	16.53	38.37	40.74	156.06	0.54
4500.00	1.34	149.86	4499.34	-39.05	17.99	40.29	42.99	155.27	0.40
4600.00	0.57	154.16	4599.33	-40.50	18.79	41.80	44.65	155.12	0.78
4700.00	0.55	161.99	4699.32	-41.40	19.15	42.72	45.62	155.18	0.08
4800.00	0.34	187.57	4799.32	-42.15	19.26	43.48	46.35	155.45	0.28
4900.00	0.33	205.79	4899.32	-42.70	19.10	44.01	46.78	155.91	0.11
5000.00	0.32	222.94	4999.32	-43.17	18.78	44.45	47.07	156.48	0.10
5100.00	0.67	241.59	5099.31	-43.65	18.08	44.88	47.24	157.50	0.38
5200.00	0.15	237.65	5199.31	-44.00	17.45	45.18	47.33	158.36	0.53
5300.00	0.69	233.12	5299.31	-44.43	16.86	45.56	47.52	159.21	0.54
5400.00	0.34	242.74	5399.30	-44.92	16.12	46.00	47.73	160.26	0.36
5500.00	0.90	258.79	5499.30	-45.21	15.08	46.21	47.66	161.55	0.59
5600.00	0.85	286.49	5599.28	-45.15	13.60	46.04	47.16	163.24	0.42
5700.00	0.89	288.35	5699.27	-44.70	12.15	45.48	46.32	164.79	0.05

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5800.00	0.90	295.74	5799.26	-44.11	10.71	44.79	45.39	166.35	0.12
5900.00	0.33	280.96	5899.26	-43.72	9.72	44.32	44.79	167.46	0.58
6000.00	0.69	272.81	5999.25	-43.63	8.84	44.17	44.52	168.55	0.36
6100.00	0.82	281.55	6099.24	-43.46	7.54	43.90	44.11	170.16	0.18
6200.00	0.68	285.50	6199.23	-43.16	6.26	43.51	43.61	171.74	0.16
6300.00	0.60	289.04	6299.23	-42.83	5.20	43.10	43.15	173.07	0.09
6400.00	0.88	275.28	6399.22	-42.59	3.94	42.77	42.77	174.71	0.33
6500.00	0.84	265.07	6499.21	-42.58	2.44	42.65	42.65	176.72	0.16
6600.00	0.81	258.75	6599.20	-42.78	1.02	42.74	42.80	178.64	0.10
6700.00	0.84	244.84	6699.19	-43.23	-0.33	43.09	43.23	180.44	0.20
6800.00	0.76	235.87	6799.18	-43.91	-1.54	43.68	43.94	182.01	0.15
6900.00	0.80	229.25	6899.17	-44.74	-2.62	44.42	44.82	183.35	0.10
7000.00	0.67	236.22	6999.16	-45.52	-3.63	45.12	45.66	184.56	0.16
7100.00	0.30	255.19	7099.16	-45.91	-4.37	45.45	46.12	185.44	0.39
7200.00	0.77	246.33	7199.15	-46.25	-5.24	45.73	46.54	186.46	0.47
7300.00	0.26	228.15	7299.15	-46.67	-6.02	46.08	47.05	187.35	0.53
7400.00	1.33	222.17	7399.14	-47.68	-6.97	47.02	48.18	188.32	1.08
7500.00	1.60	211.52	7499.10	-49.73	-8.48	48.96	50.45	189.68	0.38
7600.00	1.18	206.78	7599.07	-51.84	-9.68	50.97	52.74	190.57	0.44
7700.00	0.69	199.52	7699.06	-53.32	-10.34	52.40	54.32	190.97	0.50
7755.00	0.65	193.08	7754.06	-53.94	-10.52	53.00	54.95	191.04	0.15



Vaughn Energy Services
Midland, Texas
432-563-5444
Surveyor: Gene Heiss
Triste Draw 5 Federal Com No 002H / API 30-025-40581



VES Survey Date: 07/12/2013

Concho Oil and Gas

Lea County

Triste Draw 5 Federal #2H

Triste Draw 5 Federal #2H

OH

Design: OH

Standard Survey Report

25 July, 2013

HOBBS OCD

OCT 31 2013

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Stryker Directional Survey Report

Company:	Concho Oil and Gas	Local Co-ordinate Reference:	Site Triste Draw 5 Federal #2H
Project:	Lea County	TVD Reference:	3628 GL + 18 @ 3646.0usft (Silver Oak 7)
Site:	Triste Draw 5 Federal #2H	MD Reference:	3628 GL + 18 @ 3646.0usft (Silver Oak 7)
Well:	Triste Draw 5 Federal #2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Project:	Lea County		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Triste Draw 5 Federal #2H				
Site Position:		Northing:	456,197.70 usft	Latitude:	32° 15' 9.404 N
From:	Map	Easting:	696,077.00 usft	Longitude:	103° 41' 56.676 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.34 °

Well	Triste Draw 5 Federal #2H					
Well Position	+N/-S	0.0 usft	Northing:	456,197.70 usf	Latitude:	32° 15' 9.404 N
	+E/-W	0.0 usft	Easting:	696,077.00 usf	Longitude:	103° 41' 56.676 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usf	Ground Level:	3,628.0 usf

Wellbore:	OH
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/24/2013	7.40	60.14	48,416

Design:	OH
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Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	191.03

Survey Program		Date	7/25/2013	
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	7,755.0	Survey #1 (OH)	GyroFlex	
7,922.0	12,749.0	Survey #2 (OH)	MWD	MWD - Standard

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.31	123.23	100.0	-0.1	0.2	0.1	0.31	0.31	0.00
200.0	0.20	122.86	200.0	-0.4	0.6	0.3	0.11	-0.11	-0.37
300.0	0.16	142.33	300.0	-0.6	0.8	0.4	0.07	-0.04	19.47
400.0	0.29	160.61	400.0	-0.9	1.0	0.7	0.15	0.13	18.28
500.0	0.24	172.38	500.0	-1.4	1.1	1.2	0.07	-0.05	11.77
600.0	0.14	199.20	600.0	-1.7	1.1	1.5	0.13	-0.10	26.82
700.0	0.38	204.87	700.0	-2.1	0.9	1.9	0.24	0.24	5.67
800.0	0.24	224.37	800.0	-2.6	0.6	2.4	0.17	-0.14	19.50
900.0	0.61	235.49	900.0	-3.0	0.0	3.0	0.38	0.37	11.12

Stryker Directional Survey Report

Company:	Concho Oil and Gas	Local Co-ordinate Reference:	Site Triste Draw 5 Federal #2H
Project:	Lea County	TVD Reference:	3628 GL + 18 @ 3646.0usft (Silver Oak 7)
Site:	Triste Draw 5 Federal #2H	MD Reference:	3628 GL + 18 @ 3646.0usft (Silver Oak 7)
Well:	Triste Draw 5 Federal #2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,000.0	0.93	247.16	1,000.0	-3.6	-1.1	3.8	0.35	0.32	11.67
1,100.0	1.31	249.11	1,100.0	-4.4	-3.0	4.9	0.38	0.38	1.95
1,200.0	1.46	253.10	1,199.9	-5.2	-5.2	6.1	0.18	0.15	3.99
1,300.0	1.28	236.90	1,299.9	-6.1	-7.4	7.4	0.43	-0.18	-16.20
1,400.0	1.20	201.74	1,399.9	-7.7	-8.7	9.2	0.75	-0.08	-35.16
1,500.0	1.61	192.22	1,499.9	-10.1	-9.4	11.7	0.47	0.41	-9.52
1,600.0	0.97	190.74	1,599.8	-12.3	-9.9	13.9	0.64	-0.64	-1.48
1,700.0	1.31	185.43	1,699.8	-14.2	-10.1	15.9	0.36	0.34	-5.31
1,800.0	1.10	177.82	1,799.8	-16.3	-10.2	18.0	0.26	-0.21	-7.61
1,900.0	1.30	169.46	1,899.8	-18.4	-10.0	20.0	0.27	0.20	-8.36
2,000.0	0.76	156.07	1,999.7	-20.1	-9.5	21.6	0.59	-0.54	-13.39
2,100.0	0.33	137.60	2,099.7	-20.9	-9.0	22.3	0.46	-0.43	-18.47
2,200.0	0.96	129.85	2,199.7	-21.7	-8.2	22.9	0.63	0.63	-7.75
2,300.0	1.30	110.53	2,299.7	-22.6	-6.5	23.4	0.51	0.34	-19.32
2,400.0	1.52	88.50	2,399.7	-23.0	-4.1	23.3	0.58	0.22	-22.03
2,500.0	1.20	68.21	2,499.7	-22.6	-1.8	22.5	0.57	-0.32	-20.29
2,600.0	1.33	58.59	2,599.6	-21.6	0.2	21.1	0.25	0.13	-9.62
2,700.0	1.42	76.99	2,699.6	-20.7	2.4	19.9	0.45	0.09	18.40
2,800.0	0.95	83.47	2,799.6	-20.3	4.4	19.1	0.49	-0.47	6.48
2,900.0	0.91	92.89	2,899.6	-20.3	6.0	18.7	0.16	-0.04	9.42
3,000.0	0.93	108.79	2,999.6	-20.6	7.6	18.7	0.26	0.02	15.90
3,100.0	1.21	125.64	3,099.5	-21.4	9.2	19.3	0.42	0.28	16.85
3,200.0	1.42	148.87	3,199.5	-23.1	10.7	20.6	0.57	0.21	23.23
3,300.0	0.49	157.73	3,299.5	-24.6	11.5	21.9	0.94	-0.93	8.86
3,400.0	0.42	185.91	3,399.5	-25.3	11.6	22.6	0.23	-0.07	28.18
3,500.0	0.27	202.60	3,499.5	-25.9	11.5	23.2	0.18	-0.15	16.69
3,600.0	0.29	208.36	3,599.5	-26.4	11.3	23.7	0.03	0.02	5.76
3,700.0	0.84	198.17	3,699.5	-27.3	11.0	24.7	0.56	0.55	-10.19
3,800.0	0.36	188.64	3,799.5	-28.3	10.7	25.7	0.49	-0.48	-9.53
3,900.0	0.69	174.78	3,899.5	-29.2	10.7	26.6	0.35	0.33	-13.86
4,000.0	1.11	160.21	3,999.5	-30.7	11.1	28.0	0.48	0.42	-14.57
4,100.0	1.74	147.51	4,099.4	-32.9	12.2	30.0	0.70	0.63	-12.70
4,200.0	1.15	137.28	4,199.4	-34.9	13.7	31.6	0.64	-0.59	-10.23
4,300.0	0.86	120.98	4,299.4	-36.0	15.0	32.5	0.40	-0.29	-16.30
4,400.0	1.36	132.71	4,399.4	-37.2	16.5	33.4	0.55	0.50	11.73
4,500.0	1.34	149.86	4,499.3	-39.0	18.0	34.9	0.40	-0.02	17.15
4,600.0	0.57	154.16	4,599.3	-40.5	18.8	36.2	0.77	-0.77	4.30
4,700.0	0.55	161.99	4,699.3	-41.4	19.2	37.0	0.08	-0.02	7.83
4,800.0	0.34	187.57	4,799.3	-42.2	19.3	37.7	0.28	-0.21	25.58
4,900.0	0.33	205.79	4,899.3	-42.7	19.1	38.3	0.11	-0.01	18.22
5,000.0	0.32	222.94	4,999.3	-43.2	18.8	38.8	0.10	-0.01	17.15
5,100.0	0.67	241.59	5,099.3	-43.7	18.1	39.4	0.38	0.35	18.65
5,200.0	0.15	237.65	5,199.3	-44.0	17.5	39.8	0.52	-0.52	-3.94

Stryker Directional Survey Report

Company:	Concho Oil and Gas	Local Co-ordinate Reference:	Site Triste Draw 5 Federal #2H
Project:	Lea County	TVD Reference:	3628 GL + 18 @ 3646.0usft (Silver Oak 7)
Site:	Triste Draw 5 Federal #2H	MD Reference:	3628 GL + 18 @ 3646.0usft (Silver Oak 7)
Well:	Triste Draw 5 Federal #2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	0.69	233.12	5,299.3	-44.4	16.9	40.4	0.54	0.54	-4.53
5,400.0	0.34	242.74	5,399.3	-44.9	16.1	41.0	0.36	-0.35	9.62
5,500.0	0.90	258.79	5,499.3	-45.2	15.1	41.5	0.58	0.56	16.05
5,600.0	0.85	286.49	5,599.3	-45.2	13.6	41.7	0.42	-0.05	27.70
5,700.0	0.89	288.35	5,699.3	-44.7	12.2	41.6	0.05	0.04	1.86
5,800.0	0.90	295.74	5,799.3	-44.1	10.7	41.3	0.12	0.01	7.39
5,900.0	0.33	280.96	5,899.3	-43.7	9.7	41.1	0.59	-0.57	-14.78
6,000.0	0.69	272.81	5,999.3	-43.6	8.9	41.1	0.37	0.36	-8.15
6,100.0	0.82	281.55	6,099.2	-43.5	7.5	41.2	0.17	0.13	8.74
6,200.0	0.68	285.50	6,199.2	-43.2	6.3	41.2	0.15	-0.14	3.95
6,300.0	0.60	289.04	6,299.2	-42.8	5.2	41.1	0.09	-0.08	3.54
6,400.0	0.88	275.28	6,399.2	-42.6	4.0	41.1	0.33	0.28	-13.76
6,500.0	0.84	265.07	6,499.2	-42.6	2.5	41.3	0.16	-0.04	-10.21
6,600.0	0.81	258.75	6,599.2	-42.8	1.0	41.8	0.10	-0.03	-6.32
6,700.0	0.84	244.84	6,699.2	-43.2	-0.3	42.5	0.20	0.03	-13.91
6,800.0	0.76	235.87	6,799.2	-43.9	-1.5	43.4	0.15	-0.08	-8.97
6,900.0	0.80	229.25	6,899.2	-44.8	-2.6	44.4	0.10	0.04	-6.62
7,000.0	0.67	236.22	6,999.2	-45.5	-3.6	45.4	0.16	-0.13	6.97
7,100.0	0.30	255.19	7,099.2	-45.9	-4.4	45.9	0.40	-0.37	18.97
7,200.0	0.77	246.33	7,199.2	-46.3	-5.2	46.4	0.48	0.47	-8.86
7,300.0	0.26	228.15	7,299.1	-46.7	-6.0	47.0	0.53	-0.51	-18.18
7,400.0	1.33	222.17	7,399.1	-47.7	-7.0	48.1	1.07	1.07	-5.98
7,500.0	1.60	211.52	7,499.1	-49.7	-8.5	50.4	0.38	0.27	-10.65
7,600.0	1.18	206.78	7,599.1	-51.9	-9.7	52.7	0.44	-0.42	-4.74
7,700.0	0.69	199.52	7,699.1	-53.3	-10.3	54.3	0.50	-0.49	-7.26
7,755.0	0.65	193.08	7,754.1	-54.0	-10.5	55.0	0.15	-0.07	-11.71
7,922.0	1.00	202.70	7,921.0	-56.2	-11.3	57.3	0.22	0.21	5.76
7,954.0	1.30	185.70	7,953.0	-56.8	-11.4	58.0	1.41	0.94	-53.13
7,986.0	4.80	170.50	7,985.0	-58.5	-11.3	59.6	11.13	10.94	-47.50
8,018.0	9.50	166.30	8,016.7	-62.4	-10.4	63.3	14.77	14.69	-13.13
8,049.0	13.70	164.40	8,047.1	-68.4	-8.8	68.9	13.60	13.55	-6.13
8,081.0	16.20	165.30	8,078.0	-76.4	-6.7	76.3	7.85	7.81	2.81
8,113.0	18.70	166.00	8,108.5	-85.7	-4.3	84.9	7.84	7.81	2.19
8,145.0	22.80	168.80	8,138.4	-96.8	-1.8	95.3	13.18	12.81	8.75
8,176.0	27.20	172.50	8,166.5	-109.7	0.3	107.6	15.06	14.19	11.94
8,208.0	31.00	175.60	8,194.5	-125.2	1.8	122.5	12.77	11.88	9.69
8,240.0	34.00	176.90	8,221.5	-142.3	3.0	139.1	9.63	9.38	4.06
8,272.0	37.90	178.80	8,247.4	-161.1	3.6	157.4	12.67	12.19	5.94
8,303.0	40.50	179.50	8,271.4	-180.7	3.9	176.6	8.51	8.39	2.26
8,335.0	45.70	180.00	8,294.8	-202.5	4.0	198.0	16.28	16.25	1.56
8,367.0	49.40	180.60	8,316.4	-226.1	3.9	221.2	11.64	11.56	1.88
8,399.0	52.80	180.20	8,336.4	-251.0	3.7	245.7	10.67	10.63	-1.25
8,430.0	56.50	178.80	8,354.4	-276.3	4.0	270.5	12.49	11.94	-4.52

Stryker Directional Survey Report

Company:	Concho Oil and Gas	Local Co-ordinate Reference:	Site Triste Draw 5 Federal #2H
Project:	Lea County	TVD Reference:	3628 GL + 18 @ 3646.0usft (Silver Oak 7)
Site:	Triste Draw 5 Federal #2H	MD Reference:	3628 GL + 18 @ 3646.0usft (Silver Oak 7)
Well:	Triste Draw 5 Federal #2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,462.0	59.80	177.90	8,371.3	-303.5	4.7	297.0	10.59	10.31	-2.81
8,494.0	60.80	177.00	8,387.1	-331.3	6.0	324.0	3.97	3.13	-2.81
8,525.0	63.10	175.80	8,401.7	-358.6	7.7	350.5	8.17	7.42	-3.87
8,557.0	65.50	176.70	8,415.6	-387.3	9.6	378.3	7.92	7.50	2.81
8,589.0	68.60	178.60	8,428.0	-416.8	10.8	407.0	11.12	9.69	5.94
8,621.0	71.50	178.40	8,439.0	-446.8	11.6	436.4	9.08	9.06	-0.63
8,652.0	75.40	176.90	8,447.8	-476.5	12.8	465.3	13.41	12.58	-4.84
8,684.0	77.60	176.50	8,455.3	-507.6	14.6	495.4	6.98	6.88	-1.25
8,716.0	79.30	176.30	8,461.7	-538.9	16.6	525.7	5.35	5.31	-0.63
8,747.0	81.60	176.50	8,466.8	-569.4	18.5	555.3	7.45	7.42	0.65
8,779.0	86.40	176.30	8,470.2	-601.1	20.5	586.1	15.01	15.00	-0.63
8,813.0	89.80	177.40	8,471.3	-635.0	22.3	619.0	10.51	10.00	3.24
8,908.0	90.30	177.20	8,471.2	-729.9	26.8	711.3	0.57	0.53	-0.21
9,003.0	90.70	178.60	8,470.4	-824.9	30.3	803.8	1.53	0.42	1.47
9,098.0	88.80	177.60	8,470.8	-919.8	33.4	896.4	2.26	-2.00	-1.05
9,194.0	88.30	177.60	8,473.2	-1,015.7	37.5	989.8	0.52	-0.52	0.00
9,288.0	88.30	175.80	8,476.0	-1,109.5	42.9	1,080.8	1.91	0.00	-1.91
9,383.0	89.60	175.60	8,477.7	-1,204.2	50.0	1,172.4	1.38	1.37	-0.21
9,478.0	87.00	174.90	8,480.6	-1,298.8	57.9	1,263.8	2.83	-2.74	-0.74
9,574.0	86.70	175.30	8,485.8	-1,394.3	66.0	1,355.9	0.52	-0.31	0.42
9,670.0	90.70	174.60	8,488.0	-1,489.9	74.5	1,448.1	4.23	4.17	-0.73
9,765.0	92.20	173.00	8,485.6	-1,584.3	84.7	1,538.8	2.31	1.58	-1.68
9,860.0	87.10	173.70	8,486.2	-1,678.7	95.7	1,629.3	5.42	-5.37	0.74
9,955.0	85.50	174.40	8,492.3	-1,772.9	105.6	1,720.0	1.84	-1.68	0.74
10,019.0	83.60	175.10	8,498.4	-1,836.4	111.4	1,781.1	3.16	-2.97	1.09
10,051.0	82.70	175.50	8,502.2	-1,868.1	114.0	1,811.7	3.07	-2.81	1.25
10,146.0	87.20	176.20	8,510.6	-1,962.4	120.8	1,903.0	4.79	4.74	0.74
10,242.0	90.10	175.50	8,512.8	-2,058.1	127.8	1,995.6	3.11	3.02	-0.73
10,337.0	90.70	175.30	8,512.2	-2,152.8	135.4	2,087.1	0.67	0.63	-0.21
10,432.0	90.00	174.90	8,511.6	-2,247.5	143.5	2,178.5	0.85	-0.74	-0.42
10,528.0	90.30	174.20	8,511.3	-2,343.0	152.6	2,270.5	0.79	0.31	-0.73
10,623.0	90.20	173.50	8,510.9	-2,437.5	162.8	2,361.3	0.74	-0.11	-0.74
10,718.0	89.10	173.20	8,511.5	-2,531.8	173.8	2,451.8	1.20	-1.16	-0.32
10,814.0	89.70	173.90	8,512.5	-2,627.2	184.6	2,543.4	0.96	0.63	0.73
10,909.0	89.90	174.60	8,512.8	-2,721.7	194.1	2,634.3	0.77	0.21	0.74
11,004.0	89.40	177.90	8,513.4	-2,816.5	200.3	2,726.1	3.51	-0.53	3.47
11,098.0	89.90	178.30	8,514.0	-2,910.5	203.4	2,817.8	0.68	0.53	0.43
11,194.0	89.60	178.10	8,514.4	-3,006.4	206.5	2,911.4	0.38	-0.31	-0.21
11,289.0	89.30	177.60	8,515.3	-3,101.4	210.0	3,003.9	0.61	-0.32	-0.53
11,385.0	88.40	177.00	8,517.3	-3,197.2	214.6	3,097.1	1.13	-0.94	-0.63
11,480.0	89.40	177.20	8,519.1	-3,292.1	219.4	3,189.3	1.07	1.05	0.21
11,575.0	88.50	177.00	8,520.8	-3,386.9	224.2	3,281.5	0.97	-0.95	-0.21
11,670.0	92.30	177.70	8,520.2	-3,481.8	228.6	3,373.7	4.07	4.00	0.74
11,765.0	89.70	177.00	8,518.5	-3,576.7	232.9	3,466.0	2.83	-2.74	-0.74

Stryker Directional Survey Report

Company:	Concho Oil and Gas	Local Co-ordinate Reference:	Site Triste Draw 5 Federal #2H
Project:	Lea County	TVD Reference:	3628 GL + 18 @ 3646.0usft (Silver Oak 7)
Site:	Triste Draw 5 Federal #2H	MD Reference:	3628 GL + 18 @ 3646.0usft (Silver Oak 7)
Well:	Triste Draw 5 Federal #2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,861.0	90.00	176.50	8,518.8	-3,672.5	238.4	3,559.1	0.61	0.31	-0.52
11,956.0	91.30	177.90	8,517.7	-3,767.4	243.0	3,651.3	2.01	1.37	1.47
12,052.0	89.30	175.10	8,517.2	-3,863.2	248.9	3,744.2	3.58	-2.08	-2.92
12,147.0	88.80	174.60	8,518.7	-3,957.8	257.4	3,835.4	0.74	-0.53	-0.53
12,242.0	90.30	173.50	8,519.5	-4,052.3	267.3	3,926.3	1.96	1.58	-1.16
12,338.0	90.00	173.30	8,519.2	-4,147.7	278.3	4,017.8	0.38	-0.31	-0.21
12,433.0	91.00	174.20	8,518.4	-4,242.1	288.6	4,108.5	1.42	1.05	0.95
12,529.0	87.10	173.20	8,520.0	-4,337.5	299.2	4,200.1	4.19	-4.06	-1.04
12,624.0	86.40	173.00	8,525.4	-4,431.6	310.6	4,290.3	0.77	-0.74	-0.21
12,701.0	85.30	172.50	8,531.0	-4,507.8	320.3	4,363.3	1.57	-1.43	-0.65
12,749.0	85.30	172.50	8,534.9	-4,555.3	326.5	4,408.6	0.00	0.00	0.00

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,755.0	7,754.1	-54.0	-10.5	Gyro Tie-in
12,749.0	8,534.9	-4,555.3	326.5	12749' BHL Projection



COMPANY: Concho Oil and Gas
WELL: Triste Draw 5 Federal #2H
COUNTY: Lea County
DATUM: NAD 1927 (NADCON CONUS)
RIG: Silver Oak #7



GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 7.06°

OFFICE: 936.582.7296

GEODETTIC ZONE: New Mexico East 3001					
3628 GL + 18 @ 3646.0usft (Silver Oak 7)					
GROUND ELEVATION: 3628.0					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	456197.70	696077.00	32° 15' 9.404 N	103° 41' 56.676 W

PLAN SECTIONS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	9003.0	90.70	178.60	8470.4	-824.9	30.3	0.00	0.00	824.8	
2	9181.8	89.75	175.15	8469.7	-1003.4	40.0	2.00	-105.31	1003.6	
3	12765.8	89.75	175.15	8485.0	-4574.5	343.0	0.00	0.00	4587.3	EOL TristeDraw 5 FED #2H

