# OCO Hobbs

Form 3160-5 (August 2007)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

HOBBSOCD
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FORM APPROVED OMB NO. 1004-0135 Expires: July 31, 2010

 Expires:	July	31,	
ial-No		ر ر	

SUNDRY NOTICES AND REPORTS ON WELLS JAN 2 0 2015

Do not use this form for proposals to drill or to re-enter an

NMLC068281B

abandoned we	RED HILLS COMMANICATION TOWN OTH   RED HILLS COMMANICATION TOWN OF   RED HILLS COMMANICATION TOWN OF   RED HILLS COMMANICATION TOWN   Ret.	6. If Indian, Allottee or Tribe Name			
SUBMIT IN TRI	PLICATE - Other instructions or	n reverse side.REC	awad	7. If Unit or CA/Agree	ement, Name and/or No.
Type of Well     Oil Well	ner: UNKNOWN OTH			RED HILLS COM	MUNICATION TOWER -BU
Name of Operator     CONOCOPHILLIPS COMPAN	Contact: KRISTIN			9. API Well No.	
3a. Address 600 N DAIRY ASHFORD P10 HOUSTON, TX 77079			)	10. Field and Pool, or	
	., R., M., or Survey Description)			11. County or Parish,	and State
Sec 17 T26S R32E				LEA COUNTY.	NM
		•		,	
12. CHECK APPI	ROPRIATE BOX(ES) TO INDIC	ATE NATURE OF 1	NOTICE, RE	PORT, OR OTHE	R DATA
TYPE OF SUBMISSION		TYPE O	F ACTION		
Notice of Intent	☐ Acidize ☐	) Deepen	☐ Production	on (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing ☐	Fracture Treat	□ Reclamat	tion	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair ☐	New Construction	□ Recompl	ete	Other
☐ Final Abandonment Notice	☐ Change Plans	Plug and Abandon	□ Tempora	rily Abandon	Surface Disturbance
•	☐ Convert to Injection ☐	Plug Back	□ Water Di	sposal	
ConocoPhillips respectfully re (AGL) Self-Support communic Township 26 South, and Rang pressure data to be received to operated wells and be collected will provide ConocoPhillips peand production efforts.  Road:	quest approval to construct and uration tower in a 50 foot by 50 foot ge 32 East in Lea County, NM. They a central receiver point from alled and sent to our internal product rsonnel with business data conne	compound, located in tower will allow prose existing and new Cotion system. In additional ctivity for assisting in	in Section 17, duction and nocoPhillips on, the tower exploration		
14. I hereby certify that the foregoing is	true and correct.  Electronic Submission #260198 v For CONOCOPHILLIP	erified by the BLM We S COMPANY, sent to	ell Information the Hobbs	System	
Name (Printed/Typed) KRISTINA	MICKENS	Title SR. RE	GULATORY	SPECIALIST	
Signature (Electronic		Date . 09/03/2			
	THIS SPACE FOR FED	ERAL OR STATE	OFFICE US	6E =	
_Approved_By	~JCoff	Title	LD MANAGEI	₹	Date 1/12/15
Conditions of approval, if any, are altache certify that the applicant holds legal or eq which would entitle the applicant to condition	uitable title to those rights in the subject le		AD FIELD OF	FICE	
Title 18 U.S.C. Section 1001 and Title 43 States any false, fictitious or fraudulent	U.S.C. Section 1212; make it a crime for statements or representations as to any magnetic statements.	any person knowingly and atter within its jurisdiction	d willfully to mal	ke to any department or	agency of the United

\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\*

Accepted for Record Only MUSICO 1/21/2015

JAN 2 1 2015

# Additional data for EC transaction #260198 that would not fit on the form

## 32. Additional remarks, continued

Approximately 318.55' of overhead power will be installed parallel to the roads.



#### SURVEY OF A COMMUNICATION TOWER EASEMENT AND

ACCESS EASEMENT WITHIN LANDS NOW OR FORMERLY OWNED BY THE BUREAU OF LAND MANAGEMENT

WITHIN SECTION 17, T-26-S, R-32-E, N.M.P.M., LEA COUNTY, NEW MEXICO SHEET 2 OF 2

## COMMUNICATION TOWER EASEMENT DESCRIPTION

A 50' x 50' square, Communication Tower Easement within Southeast Quarter of Section 17, Township 26 South, Range 32 East of the New Mexico Principal Meridian, Lea County, New Mexico and being more particularly described as follows:

COMMENCING at the Southeast Corner of Section 16 of said Township and Range; THENCE, North 88'20'17" West for 5325.94' feet to the Southeast Corner of said Section 17; THENCE, North 77'17'59" West for 2435.13 feet to the Point of Beginning for this Communication Tower Easement Description:

THENCE, North 71'03'46" West for 50.00 feet;
THENCE, North 71'03'46" West for 50.00 feet;
THENCE, THENCE, North 18'56'14" West for 50.00 feet;
THENCE, North 18'56'14" East for 50.00 feet to the Point of Termination for this Communication Tower Easement Description.

The above described Easement is 2500 square feet or 0.057 Acres, more or less.

#### TOGETHER WITH

#### CENTERLINE OF ACCESS EASEMENT DESCRIPTION

Centerline of an Access Easement crossing Section 17. Township 26 south, Range 32 East of the New Mexico Principal Meridian, Lea County, New Mexico and being more particularly described as follows:

COMMENCING of the Southeast Corner of Section 16 of said Township and Range: THENCE, North 88'20'17" West for 5325.94 feet to the Southeast Corner of said Section 17; THENCE, North 75'38'52" West for 2453.45 feet to the Point of Beginning for this Centerline Description:

THENCE. South 19'02'23" West for 68.37 feet to the Point of Termination for this Centerline Description.

The above described Centerline is 68.37 feet or 4.14 Rods in length.



HENRY P. BROADHURST, JR, NM PLS #11393

DATE

L. HENRY P. BRÖADHURST, JR. A DULY LICENSED LAND SURVEYOR IN THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THE BASEMENT(S) SHOWN ON THIS FLAT WAS PLOTTED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION, AND THAT THE SAME IS TRUE AND CORRECT TO THE BEST OF MY BELIEF.

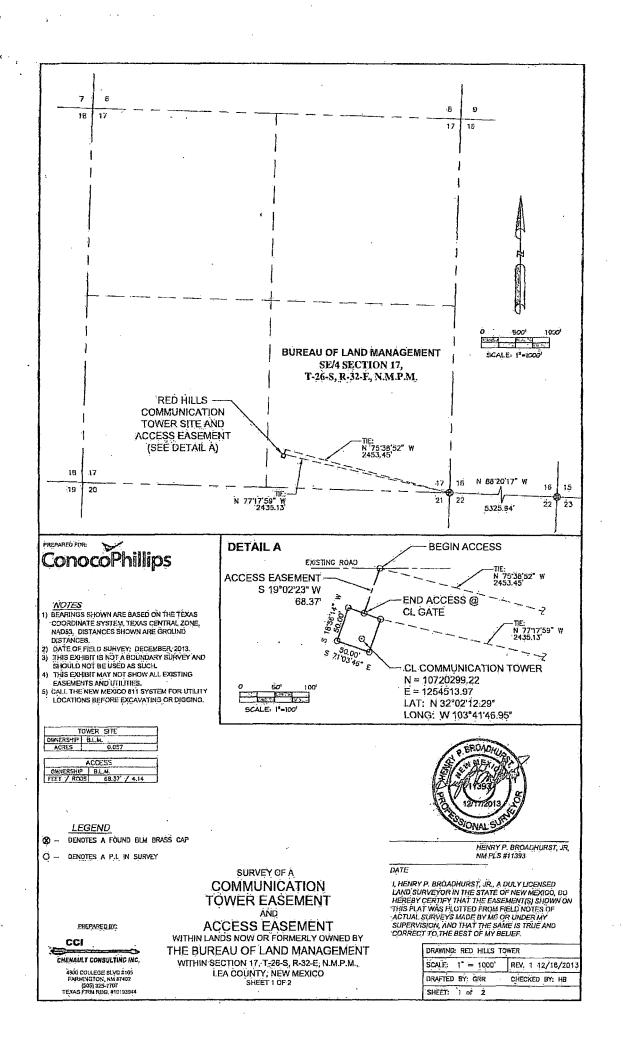
DRAWING: RED HILLS TOWER REV. 1 12/16/2013 DRAFTED BY: GRR CHECKED BY: HB SHEET: 2 of 2

PREPARED BY:

CCI

CHENAULT CONSULTING INC.

4800 COLLEGE BLVD #105 FARMINGTON, NM 87492 (505) 325-7707 TEXAS FIRM REG. #10193944





#### SURVEY OF A

### POWER LINE EASEMENT

WITHIN LANDS NOW OR FORMERLY OWNED BY THE BUREAU OF LAND MANAGEMENT WITHIN SECTION 17, T-26-S, R-32-E, N.M.P.M., LEA COUNTY, NEW MEXICO SHEET 2 OF 2

#### POWER LINE EASEMENT DESCRIPTION

Centerline of an Electric Power Line Easement crossing Section 17, Township 26 south, Range 32 East of the New Mexico Principal Meridian, Leo County, New Mexico and being more particularly described as follows:

COMMENCING at the Southeast Corner of said Section 17; THENCE, North 00'24'31" West for 5346.05 feet to the Northeast Corner of said Section 17; THENCE, South 28'30'40" West for 5494.67 feet to the Paint of Beginning for this Centerline Description:

THENCE, THENCE

The above described Centerline is 318.55 feet or 19.31 Rods in length.



HENRY P. BROADHURST; JR, NM PLS #11393

I'HENRY P. BROADHURST, JR., A DULY LICENSED LAND SURVEYOR IN THE STATE OF NEW MEXICO, DO. HEREBY CERTIFY THAT THE PASEMENT(S) SHOWN ON THIS PILAT WAS PLOTTED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OF UNDER MY SUPERVISION, AND THAT THE SAME IS TRUE AND CORRECT TO THE BEST OF MY BEVIEF.

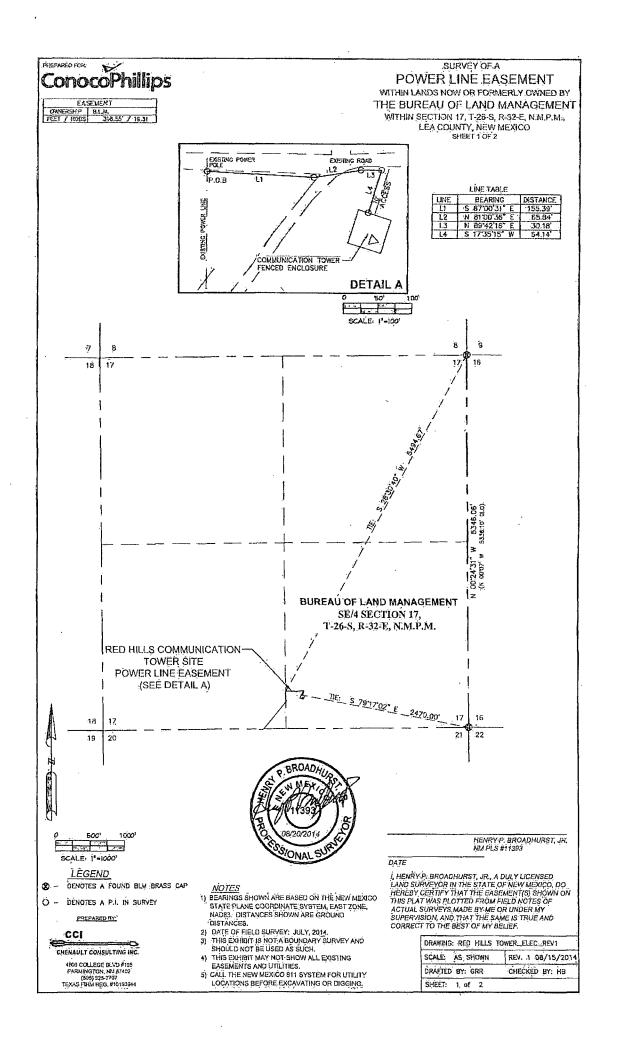
DRAWING: RED HILLS TOWER\_ELEC\_REV1 SCALE: AS SHOWN REV. 1 08/15/2014 DRAFTED BY: GRR CHECKED BY: HB SHEET: 2 of 2

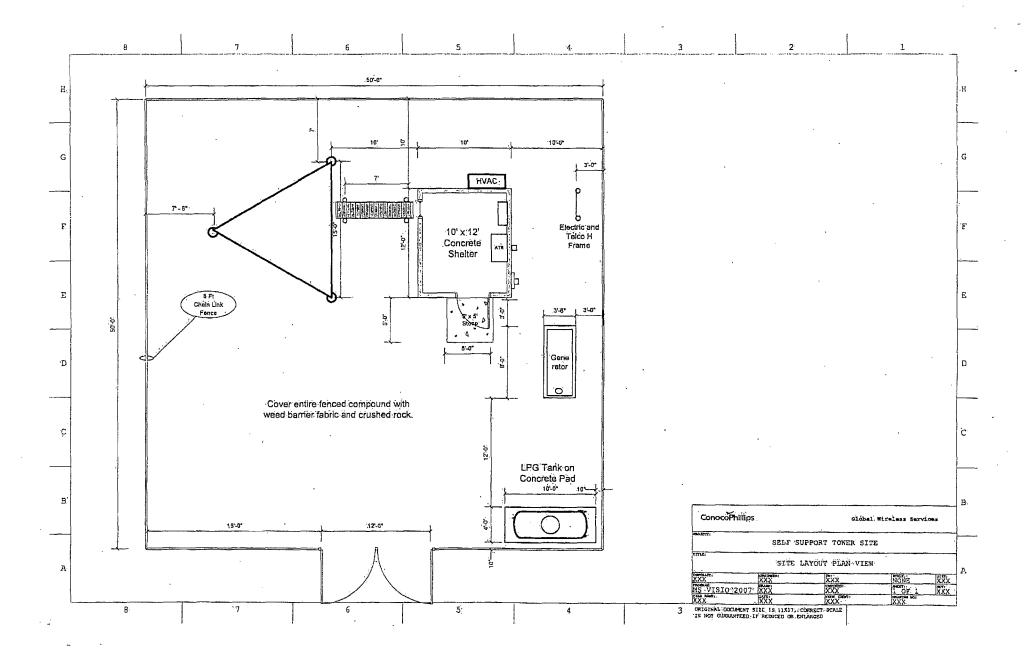
PREPARED BY:

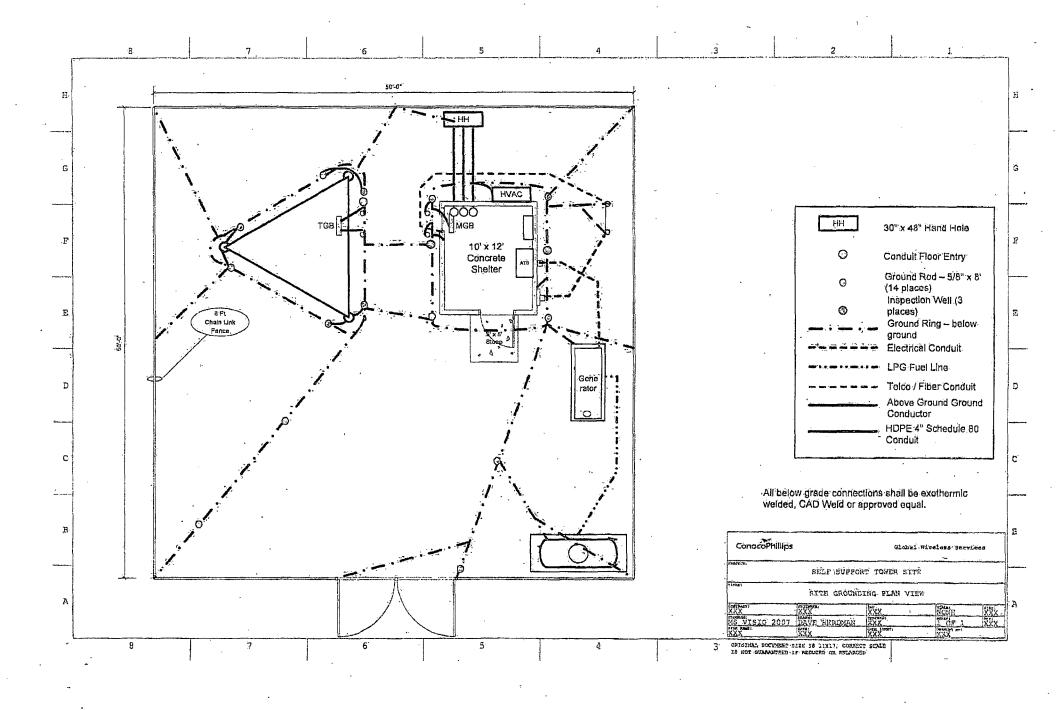
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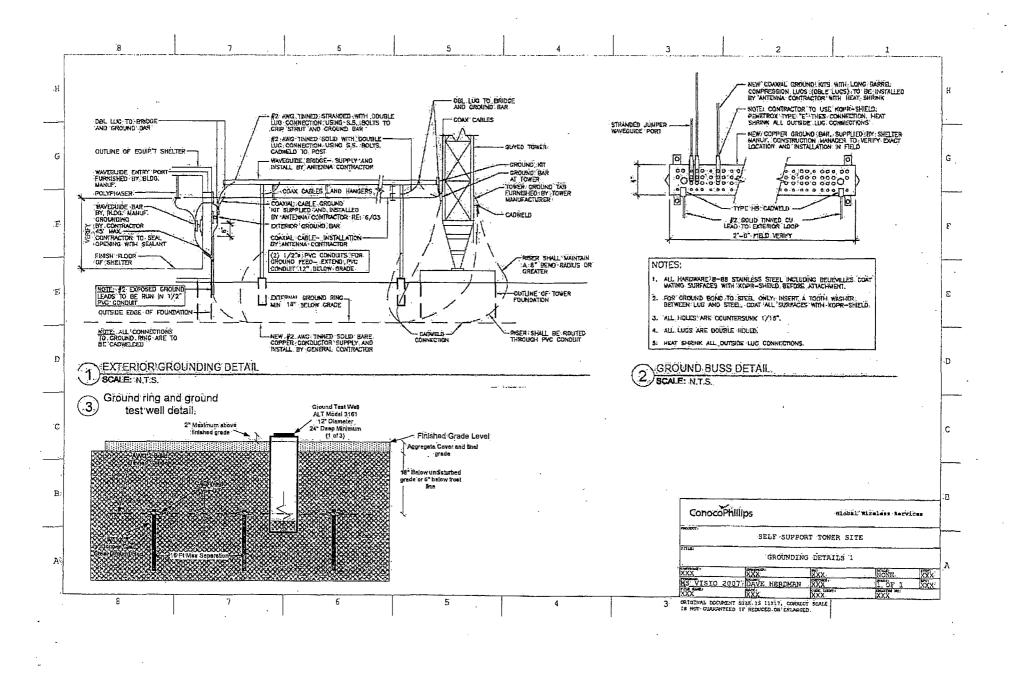
CHENAULT CONSULTING INC.

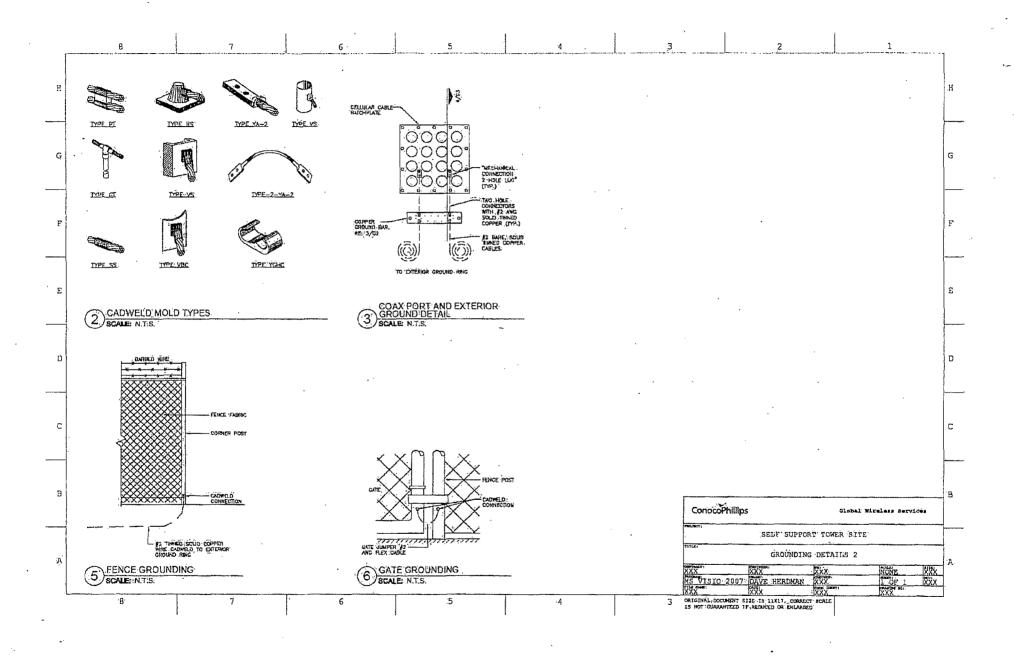
4800 COLLEGE BLVD #105 FARMINGTON, NM 87402 (505) 325-7707 TEXAS FIRM REG. #10193944

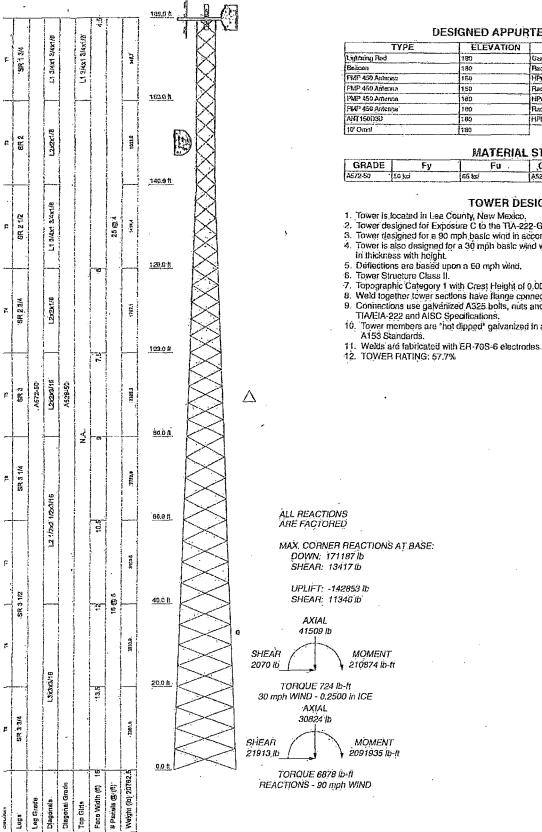












### DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Lightning Rod	180	Gandelabra	180
Beacon	180	Radio	160
FMF 450 Antenna	160	HP6-59	180
PMP 450 Apterna	150	Radio	150
PAP 450 Antenna	180	HP6-S9	150
PMP 450 Artenna	180	Radio	33
ANT 150D3D	180	HPLP1-23	33
10' Omai	180		

#### **MATERIAL STRENGTH**

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	£6 kai	65 tosi	A529-50	50 ksi	55 kal-

### **TOWER DESIGN NOTES**

- 1. Tower is located in Lea County, New Mexico,
  2. Tower designed for Exposure C to the TVA-222-G Standard.
  3. Tower designed for a 90 mph basic wind in accordance with the TVA-222-G Standard.
  4. Tower is also designed for a 30 mph basic wind with 0.25 in ice, fee is considered to increase in thickness with height.

  1. Deficiency with height.
- 5. Deflections are based upon a 60 mph wind,

- 7. Topographic Category 1 with Crest Height of 0,00 ft

  8. Weld together tower sections have flange connections.

  9. Connections use galvaritzed A325 bolts, nots and locking devices, Installation per
- TIAPEIA-222 and AISC Specifications.

  10. Tower members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM

Daley Tower Service, Inc. 1223 West Gloria Switch Road Carenció, Louisiana 70520 Phone: (337) 896-6719 FAX: (337):896-3070

<sup>b:</sup> Preliminary	Design	
roject: 180' SST CT	B Site, NM	
lient:	Drawn by: Matt.	App'd:
<sup>ode:</sup> TIA-222-G	Date: 09/30/13	Scale: NTS
Bth:		Dwg No. E-1

# DALEY TOWER SERVICE, INC. SELF SUPPORTING TOWER DESIGN SHEET

Project No.:

Location: CTB Site, NM.

Customer:

Date: 9/30/2013

CASE Job No.: 13100

TOWER DATA
Max. Height: 180 ft

Base Width: 15 ft

Tip Width: 4.5 ft

No. of Sides: 3

Leg Slope: 18"/20'

DESIGN DATA

Design Wind: 90 mph

Design Ice: 0.25 inches

Structure Class: 2

Topo. Category: 1

Exposure: C

### TOTAL STEEL WEIGHT = 21112 TOTAL GALVANIZED STEEL WEIGHT = 22590

		SEC	CTION DAT	A				LEG DATA			BRA	CING DATA		
SECTION ID.	BAYS PER SECTION	SECTION LOWER '(Feet)	UPPER (Feet)	SECTION LENGTH- (Feet)	SECTION LOWER (Feet)	SPREAD: UPPER (Feet)	LEG TYPE	LEG DIA. (Inches)	WEIGHT (Pounds)	BRACE TYPE	MEMBÉR	WEIGHT (#/Ft)	LENGTH/S ECTION (Feet)	WEIGHT (Pounds)
5:9,	5	160	180	20	4.5	4.5	SR.	1/3/4:	491	X Bracing	L1.75 x 0.125	1.44	161,21	232
5.8	5	.140	160	20	4,5	4.5	SR	2	641	X Bracing	L2 x 0.125	.1.65.	160.68	265
5:7	5	120	140	20	6	4.5	SR	2.1/2	1002	X Bracing	L1.75 x 0.125	1.44	176.29	254
5.6	5	√100	120	20	7.5	6	SR	2 3/4	1213	X Bracing	L2 x 0.125	1.65	212.4	350
5.5:	5	80	. 100	20	9	7.5	SR	3	1443	X Bracing	L2 × 0.1875	2.44	251:2	613
4.4	.4	60	80	-20	10.5	9	SR	3 1/4:	.1694	X Bracing	L2:5,x 0.1875	3:07	243.01	746
4:3	4.	40	60	20	.12-	10.5	SR	3 1/2	.1964	X Bracing	L2.5 x 0:1875	3:07	.275.02	.844
4:2	4	20	. 40	20	13.5	12	SR.	3.1/2	1964	X Bracing	L3 x 0.1875	3:71	308,28	-1144
:4:1.	4.	0	20	. 20.	15	13:5	SR	3 3/4	2255	X Bracing	L3 x.0,1875.	3:71	341:63	1267
				0		,15								
				-0										
				-0										
				.0										
				·0										
				0										
				.0										
				0										
				0										
EIGHT T	OTALS								12667					.5715

# DALEY TOWER SERVICE, INC. SELF SUPPORTING TOWER DESIGN SHEET

SECTIÓN.ID		CLIP-I	DATA	_	TC	P.FLANGE I	DATA,	BO	SECTION		
	LENGTH (Inches)	WIDTH (Inches).	THK. (Inches)	WEIGHT (Pounds)	DIA. (Inches)	THK: (Inches)	WEIGHT (Pounds)	DIA: (Inches)	THK. (Inches)	WEIGHT (Pounds)	WEIGHT (Pounds)
5.9	.6	-6	1/4در	.92	9	1	. 543	9	1	54	923
5.8	6	. 6	1/4	92	9		54.	· 10	1 1/4	84	1136
5.7.	. 6	6	1/4	92	10	-1-1/4	84	10	1:1/4.	84	1516
5.6	.6	. 6	1/4	92	.10	1 1/4	84	.10	1 ·1/4	84	1823
5.5	-6	. 6	1/4	. 92	. 10	1/1/4	84	12	1.1/2	144	2376
4.4	·6	-6	1/4	77.	,12	3:1/2	.144	12	1/1/2	:144	2805
4:3	6	6	1/4	77	.12	1.1/2	.144	12	. 1 1/2	::144	3173
4:2	6	. 6.	1/4	., .77	12	1.1/2	.144	12	1.1/2	144	3473
4.1	6	. 6	1/4	77:	12	1,1/2	144	12	1/1/2	144	3887.
				<u> </u>							
		_		. 768			.936			1026	21112

	CLI	P.BOLT, DA	ATA	FLA	NGE BOLT	DATA.	FOUNDATION DATA (PER LEG)			
SECTION ID	DÍA, (Inches)	LENGTH	QUANTITY	DIA.	LENGTH	QUANTITY	FOUNDATION DAT	A (PERLEG)		
	DIA. (Inches)	(Inches)	QUANTITI	(Inches)	(Inches)	QUANTITI	Diameter of Anchor Bolts	1,1/4	in	
5,9	1/2	1:5'	75.	3/4	3.5	12	Diameter of Shaft	NA,	ft.	
5;8	1/2	1:5,	75	3/4.	4	12	Depth of Shaft	N/	A.	
5.7	1/2.	1,5:	75.	. 1.	4:25	12	No. of Shafts Per Leg	N/	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
5,6	1/2	.1.5	75	1	4.25	12	Longitudinal Rebar Size	N/		
5.5	.1/2	1,5	75	1	4:75	18	No. of Longitudinal Rebar Per Shaft	'NA		
4.4	5/8	195.	60.	1	4.75	18	Transverse Rebar Size	N/		
4.3	5/8	1:5	60	1	4.75.	. 18	Transverse Rebar Spacing.	NA	in	
4,2	5/8	1.5	60	1	:4.75	18				
4.1	5/8	1:5	60.	1 1/4	0	18	Total Cubic Yards Per Leg	0.00	yd¹	
							Total Weight of Rebar Per Leg	#DIV/01	lbs	
							•			
<u> </u>							•			

## EXHIBIT A

## October 10, 2012

BLM Serial Number: NMLC068281B Company Reference: ConocoPhillips Company

# STANDARD STIPULATIONS FOR COMMUNICATION SITES IN THE CARLSBAD FIELD OFFICE, BLM

A copy of the grant and attachments, including stipulations and map, will be on location during construction. BLM personnel may request to view a copy of your permit during construction to ensure compliance with all stipulations.

The holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer, BLM.

- 1. The authorization is conditioned upon the submission of a copy of an approved license and/or renewal license granted by the Federal Communications Commission (FCC) or the Interdepartmental Radio Advisory Committee (IRAC) for each electronic station installation authorized or future amendments of this authorization. A copy of the FCC or I RAC authorization shall be submitted within 90 days of issuance of this authorization or within 90 days following approval of an amendment to this authorization. Failure to submit the FCC or IRAC authorization copy within the time specified shall be grounds for termination of this authorization or cancellation of an amendment to this authorization. The Authorized Officer may grant an extension of up to 90 days, if requested in writing by the holder.
- 2. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant and for all response costs, penalties, damages, claims, and other costs arising from the provisions of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Chap. 82, Section 6901 *et. seq.*, from the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Chap. 109, Section 9601 *et. seq.*, and from other applicable environmental statues.
- 3. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et. seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.
- 4. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et. seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et. seq.) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-

way holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

- 5. The holder and its sublessees shall at all times operate their radio-electronic equipment in such a manner as not to cause interference with radio-electronic operations of existing users in the vicinity. If such interference results from holder's or sublessee's operations, holder shall promptly, at its own AP2-9 APPENDIX 2 expense, modify the equipment and operations, or shut down if necessary to eliminate or reduce the interference to the satisfaction of the FCC, IRAC" and/or the Authorized Officer.
- 6. The holder shall notify the Authorized Officer of any intent to locate additional users within or upon their existing facilities, not less than 45 days prior to occupancy of holder's facilities. Information that must be included is:
  - a. Name, current address, and phone number of the third party user(s).
  - b. Expected date of occupancy.
  - c. A photo or sketch of the type of antennas to be installed, as well as any other planned physical changes to the exterior facilities operated by the holder. If the proposed use is not specified in the original authorization shall be required.
- 7. No less than 45 days prior to occupancy of the holder's facility, the holder shall notify existing users within a 1-mile radius that the holder intends to accommodate a new communication user in its facility. Existing users can then file any comments pertaining to potential frequency or electromagnetic problems with the Federal Communications Commission, 1919 M Street NW, Washington, DC 20554, with a copy to the Authorized Officer.
- 8. The holder shall be responsible for the actions and operations of any third party users associated with this facility. All such use shall be subject to the applicable terms, conditions, and stipulations of this authorization.
- 9. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" designated by the Rocky Mountain Five-State Interagency Committee. The color selected for this project is **Slate Gray**, Munsell Soil Color Chart Number 5Y 6/1.
- 10. The holder shall post signs designating the BLM serial number assigned to this facility at the points of entry to and exit from the site. These signs shall be posted in a permanent, conspicuous manner, and shall be maintained in a legible condition for the term of the authorization.
- 11. The holder agrees to share road maintenance costs with all present and future users of the access road. At such future time as a Users Association for this communication site is

Exhibit A October 10, 2012 NML C068281B

formed, the holder shall join the Users Association and remain a member in good standing. Within 30 days of the creation of such Users Association the holder shall provide the authorized officer with evidence of membership. Failure of the holder to join the Users Association and remain a member in good standing shall constitute sufficient grounds for termination of this authorization.

- 12. If, during any phase of the construction, operation, maintenance, or termination of the site or related pipeline(s), any pollutant should be discharged from site facilities, the pipeline(s) or from containers or vehicles impacting public lands, the control and total removal, disposal, and cleanup of such pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting public lands, or to repair all damages to public lands resulting there from, the Authorized Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any liability or responsibility.
- 13. Sites shall be maintained in an orderly, sanitary condition at all times. Waste materials, both liquid and solid, shall be disposed of promptly at an appropriate, authorized waste disposal facility in accordance with all applicable State and Federal laws. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, brines, chemicals, ashes, and equipment.
- 14. In those areas where erosion control structures are required to stabilize soil conditions, the holder shall install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound management practices. Any earth work will require prior approval by the Authorized Officer.
- 15. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.
- 16. A sales contract for removal of mineral material (caliche, sand, gravel, fill dirt) from an authorized pit, site, or on location must be obtained from the BLM <u>prior to commencing construction</u>. There are several options available for purchasing mineral material: contact the BLM office (505-234-5972).
- 17. The area will be kept free of the following plant species: Malta starthistle, African rue, Scotch thistle, and saltcedar

### **Special Stipulations:**

- 1. The holder shall label all equipment with the owner's name; transmitter frequency (ies); transmitting power outputs(s); and a current 24-hour phone contact number.
- 2. All above-ground structures, including dish antenna, and panel antennas other than the chain-link fence shall be painted by the holder to blend with the dominant natural color of the surrounding landscape within 60 days of installation. The color specified for this location is Standard Environmental Color "Slate Grey" (Munsell Soil Color Chart Number 5Y 6/1, and shall be flat, non-reflective finish. Any exception to this painting requirement for safety or other purposes must be reviewed and approved by the Authorized Officer in writing prior to implementation.
- 3. Special Stipulations for Cave/Karst: A possibility exists for slow subsidence or sudden collapse of a sinkhole, cave passage, or void during trenching operations, with associated safety hazards to the operator and potential for increased environmental impact. Slow subsidence or sudden collapse of sinkholes may also leave pipelines hanging and increase their possibility of leaking or failure. These subsidence processes can be triggered or enhanced by intense vibrations from construction or rerouting or focusing of surface drainages.

Other potential impacts resulting from leaking pipelines include the introduction of petroleum products or natural gas into caves, fissures or voids. In extreme or rare cases, a buildup of toxic fumes or combustible hydrocarbons in cave systems could potentially cause underground ignitions or asphyxiation of wildlife or humans. To eliminate these extreme possibilities, good record keeping is needed to quickly identify leaks for their immediate and proper treatment.

Contaminates, such as salt water, oil, or other petroleum products, from spills can be transported directly into cave and karst systems causing a negative effect to the cave environment and ecosystem. Because cave ecosystems are extremely fragile and easily disturbed, the negative effects to the cave's biological components may include disruption of some of its species. Because karst terrains and cave systems are directly and integrally

linked to groundwater recharge leaking or ruptured pipelines in karst areas may lead directly to groundwater contamination.

To avoid or lessen the potential of subsidence or collapse of karst features, toxic or combustible gas buildup, or other possible impacts to cave and karst resources from buried pipelines or cables, alignments may be rerouted to avoid karst features. The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer. Special restoration stipulations or realignment may be required at such intersections, if any.