

C-VCT-GIAM-LA-0062

VICEPRESIDENCIA DE CONTRATACIÓN Y TITULACIÓN

GRUPO DE INFORMACIÓN Y ATENCIÓN AL MINERO

PUBLICACIÓN LIBERACIÓN DE ÁREA

El suscrito Gestor del Grupo de Información y Atención al Minero hace constar que dando cumplimiento al numeral 4 del artículo 10 de la Resolución 206 de marzo 22 de 2013 y al artículo 1 del Decreto 935 de 2013, se procede a publicar en la página web de la Agencia Nacional de Minería, la Resolución con su respectiva Constancia de Ejecutoria de los siguientes expedientes que ordenan liberación de área:

No.	EXPEDIENTE	ACTO No.	FECHA	CONSTANCIA EJECUTORIA No.	FECHA DE EJECUTORIA	CLASIFICACIÓN
1	070-89	OTRO SÍ No.11	24/09/2021	NO APLICA – OTRO SÍ No. 11	NO APLICA	TÍTULO

Dada en Bogotá D, C a los Cinco (05) días del mes de Octubre de 2021.



JOSE ALEJANDRO HOFMANN DEL VALLE
COORDINADOR GRUPO DE INFORMACIÓN Y ATENCIÓN AL MINERO

Elaboró:
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MIS7-P-004-F-026. V2



OTROSÍ No. 11 AL CONTRATO No. 070-89, SUSCRITO ENTRE LA AGENCIA NACIONAL DE MINERÍA Y ACERÍAS PAZ DEL RÍO S.A.

Entre los suscritos **AGENCIA NACIONAL DE MINERÍA - ANM**, agencia estatal de naturaleza especial del sector descentralizado de la rama ejecutiva del orden nacional, con personería jurídica, patrimonio propio, autonomía administrativa, técnica y financiera, adscrita al Ministerio de Minas y Energía, representada en este acto por **OSCAR ELADIO PAREDES ZAPATA**, identificado con cédula de ciudadanía No. 19.222.410 de Bogotá, en su calidad Director General de Entidad Descentralizada Código 015, grado 27 del Servicio Geológico Colombiano, quien, para el presente acto, funge como Presidente Ad Hoc de la Agencia Nacional de Minería, según lo dispuesto por el Ministerio de Minas y Energía en el Decreto No. 1599 del 03 de diciembre de 2020, debidamente facultado para la celebración del presente Otrosí y de conformidad con sus funciones legales y en especial con las conferidas por el artículo 10 del Decreto-Ley 4134 de 3 de noviembre de 2011 y el numeral 3, literal b del artículo séptimo de la Ley 2056 de 2020, en adelante la "ANM" o "LA AUTORIDAD MINERA", de una parte, y por la otra "ACERÍAS PAZ DEL RÍO S.A." sociedad comercial constituida bajo las Leyes de la República de Colombia, identificada con NIT No. 860.029.995-1, representada legalmente por el **VICENTE ENRIQUE NOERO ARANGO** identificado con cédula de ciudadanía No. 79.487.179, debidamente facultado para celebrar el presente acto jurídico, según consta en el certificado de existencia y representación legal de la Cámara de Comercio de Bogotá (Anexo 1), en adelante "APDR" o "EL CONTRATISTA", se ha celebrado el presente Otrosí, el cual se registrá integralmente por las cláusulas acordadas en el presente documento, previas las siguientes:

CONSIDERACIONES

1. **CARBONES DE COLOMBIA S.A. CARBOCOL** como Empresa Comercial e Industrial del Estado, de segundo grado del orden al Ministerio de Minas y Energía, constituida según consta en la escritura pública número 6.350 del 16 de noviembre de 1976 otorgada en la Notaría Séptima del Circulo de Bogotá, la cual fue inscrita en el Registro Mercantil bajo el número 41.512, del libro 9 de la Cámara de Comercio de Bogotá, Empresa cuyo carácter fue reconocido y ratificado por la Ley 61 de 1979 en su artículo 7.
2. El Ministerio de Minas y Energía mediante Resolución número 795 del 16 de mayo de 1980 le otorgó en aporte a CARBOCOL, por toda la vida económica de los yacimientos, el derecho a explorar y explotar el carbón de propiedad nacional existente en las zonas "A" y "B" delimitadas en la misma Resolución 795 de 1980, zonas que integran un área correspondiente al Aporte número 9233, también otorgado a favor de CARBOCOL, y que mediante Resolución número 781 del 29 de abril de 1981 ese Ministerio ordenó la entrega de área a CARBOCOL, quien la recibió.
3. El 10 de octubre de 1989 se suscribió entre CARBOCOL S.A. (Hoy AGENCIA NACIONAL DE MINERÍA) y Acerías Paz del Río S.A., el Contrato 070-89 con el objeto de otorgar el derecho temporal y exclusivo de realizar por su cuenta y riesgo los trabajos técnicos de exploración y explotación tendientes a obtener carbón en sus calidades coquizante, aglomerante, mixto y térmico dentro del área.
4. La CLÁUSULA 11 (Término- del Contrato) estableció la duración, por treinta (30) años, contados a partir de su suscripción, con la posibilidad de ser prorrogado por periodos sucesivos de veinte (20) años a solicitud del contratista.



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documentos expresamente mencionados adelante y que hacen parte integral del presente Otrosí.

CLÁUSULA 2. OBJETO DEL CONTRATO.

El objeto del presente contrato es otorgar a **EL CONTRATISTA** el derecho temporal y exclusivo de realizar, por su cuenta y riesgo, los trabajos técnicos de construcción y montaje y explotación, tendientes a obtener carbón en sus calidades coquizantes, aglomerante, mixta y térmica, dentro del **ÁREA CONTRATADA**, por un término de treinta (30) años contados a partir de su firma, por un periodo adicional de veinte (20) años, contados a partir de la suscripción e inscripción del presente documento en el Registro Minero Nacional.

CLÁUSULA 3. ÁREA CONTRATADA.

En el área objeto del presente Otrosí, **EL CONTRATISTA** adelantará nueve (9) proyectos mineros a nivel semi – mecanizado, ocho (8) en la zona 1 (Paz de Río), y uno (1) en la zona 2 (Samacá), que abarcan 3753 celdas para un área integrada de 4459,1237 hectáreas, distribuidos en seis (6) polígonos que delimitan los proyectos, basados en la integración de áreas adyacentes de los proyectos, así: Motavita 2 y Motavita Los Pinos (Polígono 1), Comaita Este (Polígono 2), El Tambor, El Rincón, Costa Rica e Infraestructura (Polígono 3), Sagra (Polígono 4), La Chapa 2 (Polígono 5) y Samacá (Polígono 6). Adicionalmente, se delimitan las veintitrés (23) áreas, que abarcan 2554 celdas para un área de 3013,4078 hectáreas, para adelantar los procesos de formalización minera. (Ver anexo 2. Plano topográfico y Anexo 3. Definición de Áreas)

Tabla 1. Áreas de proyectos mineros.

Polígono	Proyecto Minero	Municipio	Celdas	Área (ha)
ÁREAS PROYECTOS MINEROS ZONA 1 – PAZ DE RÍO				
Polígono 1	Motavita 2 y Motavita Los Pinos	Socotá	974	1185,9990
Polígono 2	Comaita Este	Socotá	113	138,4218
Polígono 3	El Tambor, El Rincón, Costa Rica e Infraestructura	Socha – Sativasur-Sativanorte	1313	1579,7806
Polígono 4	Sagra	Socha	185	218,4788
Polígono 5	La Chapa 2	Tasco	575	670,7319
TOTAL, PAZ DE RÍO (ha)			3160	3793,4121
ÁREA PROYECTO MINERO ZONA 2 – SAMACÁ				
Polígono 6	Samacá	Samacá	593	665,7117
TOTAL, SAMACÁ (ha)			593	665,7117
TOTAL, GENERAL (ha)			3753	4459,1237

Tabla 2. Áreas de Formalización Minera.

Formalización	Municipio	Celdas	Área (Ha)
ÁREAS FORMALIZACIÓN MINERA ZONA 1 – PAZ DE RÍO			
Bella Vista	Socha	238	281,3381
Carbofrontera	Sativanorte	77	94,3103
Carboleonas	Sativanorte	300	358,4994
Cerezo 1A	Socha	61	67,6003
Comaita Norte	Socotá	237	290,3141

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Cómeza	Socha	121	148,2250
Doble A	Jerico	147	172,3380
Don Camilo	Sativanorte	78	95,5357
Edgar Castro	Jerico	24	29,3976
El Rincón 1	Sativasur	163	183,2068
Guerrero Joya	Sativanorte	122	146,1786
La Esmeralda - Guadalupe	Paz de Río - Sativasur	122	149,2599
La Esmeralda - Leonas	Sativanorte	78	95,5398
La Maravilla	Sativanorte	127	155,5496
Limoncitos	Sativanorte	94	111,3951
Malpicas	Jerico	24	29,3976
San Antonio	Socha	98	103,2239
Winkita	Sativanorte	90	110,2320
TOTAL, PAZ DE RÍO (ha)		2201	2621,5418
ÁREAS FORMALIZACIÓN MINERA ZONA 2 – SAMACÁ			
El Ancón	Samacá	32	37,3619
La Manguita	Ráquira – Samacá	134	148,7392
Ráquira	Ráquira	22	19,2702
Ruchical	Samacá	39	37,8014
Santa Fe	Samacá	126	148,6933
TOTAL, SAMACÁ (ha)		353	391,8660
TOTAL, GENERAL (ha)		2554	3013,4078

PARÁGRAFO 1: ÁREAS DE PROYECTOS MINEROS. EL CONTRATISTA adelantará nueve (9) proyectos mineros a nivel semi – mecanizado, ocho (8) en la zona 1 (Paz de Río), y uno (1) en la zona 2 (Samacá), que abarcan 3753 celdas para un área de 4459,1237 hectáreas; un (1) área de infraestructura que abarca tres (3) celdas para un área de 3,6750 hectáreas (incluida en el Polígono 3); así: (Ver anexo 2. Plano topográfico y Anexo 3. Definición de Áreas)

- **Polígono 1:** El Polígono 1, tiene 1185,9990 hectáreas, demarcadas dentro de 156 vértices y 974 celdas asociadas, reúne dentro de su área los proyectos definidos como Motavita 2 y Motavita Los Pinos. Las coordenadas descritas en la siguiente tabla corresponden a los vértices del Polígono 1 en el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss-Kruger (Transversa de Mercator), Magna Colombia Bogotá.

Vértices de delimitación del Polígono 1

Vértice	Latitud	Longitud
1	6,10600	-72,62300
2	6,10500	-72,62300
3	6,10500	-72,62200
4	6,10400	-72,62200
5	6,10400	-72,62100
6	6,10400	-72,62000
7	6,10300	-72,62000
8	6,10300	-72,61900
9	6,10200	-72,61900
10	6,10200	-72,61800
11	6,10200	-72,61700
12	6,10100	-72,61700
13	6,10100	-72,61600
14	6,10000	-72,61600
15	6,10000	-72,61500
16	6,09900	-72,61500
17	6,09900	-72,61400
18	6,09900	-72,61300

Vértice	Latitud	Longitud
19	6,09800	-72,61300
20	6,09800	-72,61200
21	6,09700	-72,61200
22	6,09700	-72,61100
23	6,09600	-72,61100
24	6,09500	-72,61100
25	6,09400	-72,61100
26	6,09400	-72,61200
27	6,09300	-72,61200
28	6,09300	-72,61300
29	6,09200	-72,61300
30	6,09200	-72,61400
31	6,09100	-72,61400
32	6,09100	-72,61500
33	6,09000	-72,61500
34	6,08900	-72,61500
35	6,08900	-72,61600
36	6,08800	-72,61600

Vértice	Latitud	Longitud
37	6,08800	-72,61700
38	6,08700	-72,61700
39	6,08600	-72,61700
40	6,08600	-72,61800
41	6,08500	-72,61800
42	6,08500	-72,61900
43	6,08400	-72,61900
44	6,08300	-72,61900
45	6,08300	-72,62000
46	6,08200	-72,62000
47	6,08200	-72,62100
48	6,08100	-72,62100
49	6,08000	-72,62100
50	6,08000	-72,62200
51	6,07900	-72,62200
52	6,07900	-72,62300
53	6,07873	-72,62300
54	6,07880	-72,62310



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Vértice	Latitud	Longitud
55	6,07200	-72,62754
56	6,07200	-72,62800
57	6,07300	-72,62800
58	6,07300	-72,62900
59	6,07400	-72,62900
60	6,07400	-72,63000
61	6,07500	-72,63000
62	6,07500	-72,63100
63	6,07600	-72,63100
64	6,07600	-72,63200
65	6,07600	-72,63300
66	6,07700	-72,63300
67	6,07700	-72,63400
68	6,07800	-72,63400
69	6,07800	-72,63500
70	6,07900	-72,63500
71	6,07900	-72,63600
72	6,08000	-72,63600
73	6,08000	-72,63700
74	6,08100	-72,63700
75	6,08100	-72,63800
76	6,08100	-72,63900
77	6,08000	-72,63900
78	6,07900	-72,63900
79	6,07800	-72,63900
80	6,07700	-72,63900
81	6,07600	-72,63900
82	6,07600	-72,64000
83	6,07600	-72,64100
84	6,07600	-72,64200
85	6,07600	-72,64300
86	6,07600	-72,64400
87	6,07600	-72,64500
88	6,07700	-72,64500

Vértice	Latitud	Longitud
89	6,07700	-72,64600
90	6,07700	-72,64700
91	6,07700	-72,64800
92	6,07700	-72,64900
93	6,07700	-72,65000
94	6,07700	-72,65100
95	6,07700	-72,65200
96	6,07700	-72,65300
97	6,07700	-72,65400
98	6,07800	-72,65400
99	6,07900	-72,65400
100	6,08000	-72,65400
101	6,08100	-72,65400
102	6,08200	-72,65400
103	6,08300	-72,65400
104	6,08400	-72,65400
105	6,08500	-72,65400
106	6,08600	-72,65400
107	6,08700	-72,65400
108	6,08800	-72,65400
109	6,08900	-72,65400
110	6,09000	-72,65400
111	6,09100	-72,65400
112	6,09200	-72,65400
113	6,09300	-72,65400
114	6,09400	-72,65400
115	6,09500	-72,65400
116	6,09600	-72,65400
117	6,09700	-72,65400
118	6,09800	-72,65400
119	6,09900	-72,65400
120	6,10000	-72,65400
121	6,10100	-72,65400
122	6,10200	-72,65400

Vértice	Latitud	Longitud
123	6,10200	-72,65500
124	6,10200	-72,65600
125	6,10200	-72,65700
126	6,10200	-72,65800
127	6,10200	-72,65900
128	6,10200	-72,66000
129	6,10200	-72,66100
130	6,10200	-72,66200
131	6,10200	-72,66300
132	6,10200	-72,66400
133	6,10200	-72,66500
134	6,10200	-72,66600
135	6,10200	-72,66700
136	6,10200	-72,66800
137	6,10200	-72,66900
138	6,10200	-72,67000
139	6,10200	-72,67100
140	6,10200	-72,67200
141	6,10200	-72,67300
142	6,10200	-72,67400
143	6,10200	-72,67500
144	6,10200	-72,67600
145	6,10200	-72,67700
146	6,10200	-72,67800
147	6,10200	-72,67900
148	6,10200	-72,68000
149	6,10200	-72,68100
150	6,10200	-72,68200
151	6,10300	-72,68300
152	6,10400	-72,68400
153	6,10400	-72,68500
154	6,10500	-72,68600
155	6,10600	-72,68700
156	6,10600	-72,68800

Listado de celdas asociadas al polígono 1, comprende un total de 974 celdas.

Celda
18N03P19N25R
18N03P19N25S
18N03P19N25T
18N03P19N25U
18N03P19N25W
18N03P19N25X
18N03P19N25Y
18N03P19N25Z
18N03P19P21Q
18N03P19P21R
18N03P19P21S
18N03P19P21T
18N03P19P21U
18N03P19P21V
18N03P19P21W
18N03P19P21X
18N03P19P21Y
18N03P19P21Z
18N03P19P22Q
18N03P19P22R
18N03P19P22S
18N03P19P22T
18N03P19P22U
18N03P19P22V
18N03P19P22W
18N03P19P22X
18N03P19P22Y
18N03P19P22Z
18N03P19P23Q
18N03P19P23R
18N03P19P23S
18N03P19P23T
18N03P19P23U

Celda
18N03P19P23V
18N03P19P23W
18N03P19P23X
18N03P19P23Y
18N03P19P23Z
18N03P19P24Q
18N03P19P24R
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18N03P19P24W
18N03P19P24X
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18N03P19P25Y
18N03P19P25Z
18N03P19Q21A
18N03P19Q21B
18N03P19Q21C
18N03P19Q21F
18N03P19Q21G

Celda
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18N03P19Q21I
18N03P19Q21J
18N03P19Q21K
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18N03P19Q21N
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18N03P19Q21Q
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18N03P19Q21S
18N03P19Q21T
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18N03P19Q21V
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18N03P24B05I

Celda
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Celda
18N03P24B15B
18N03P24B15C
18N03P24B15D
18N03P24B15E
18N03P24B15G
18N03P24B15H
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18N03P24B20J
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18N03P24B20R



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Celda	Celda	Celda	Celda	Celda
18N03P24020S	18N03P24C03D	18N03P24C06A	18N03P24C08X	18N03P24C11U
18N03P24020T	18N03P24C03E	18N03P24C06B	18N03P24C08Y	18N03P24C11V
18N03P24020U	18N03P24C03F	18N03P24C06C	18N03P24C08Z	18N03P24C11W
18N03P24020V	18N03P24C03G	18N03P24C06D	18N03P24C09A	18N03P24C11X
18N03P24020W	18N03P24C03H	18N03P24C06E	18N03P24C09B	18N03P24C11Y
18N03P24020X	18N03P24C03I	18N03P24C06F	18N03P24C09C	18N03P24C11Z
18N03P24020Y	18N03P24C03J	18N03P24C06G	18N03P24C09D	18N03P24C12A
18N03P24020Z	18N03P24C03K	18N03P24C06H	18N03P24C09E	18N03P24C12B
18N03P24025A	18N03P24C03L	18N03P24C06I	18N03P24C09F	18N03P24C12C
18N03P24025B	18N03P24C03M	18N03P24C06J	18N03P24C09G	18N03P24C12D
18N03P24025C	18N03P24C03N	18N03P24C06K	18N03P24C09H	18N03P24C12E
18N03P24025D	18N03P24C03P	18N03P24C06L	18N03P24C09I	18N03P24C12F
18N03P24025E	18N03P24C03Q	18N03P24C06M	18N03P24C09J	18N03P24C12G
18N03P24025F	18N03P24C03R	18N03P24C06N	18N03P24C09K	18N03P24C12H
18N03P24025G	18N03P24C03S	18N03P24C06O	18N03P24C09L	18N03P24C12I
18N03P24025H	18N03P24C03T	18N03P24C06P	18N03P24C09M	18N03P24C12J
18N03P24025I	18N03P24C03U	18N03P24C06Q	18N03P24C09N	18N03P24C12K
18N03P24025J	18N03P24C03V	18N03P24C06R	18N03P24C09P	18N03P24C12L
18N03P24025K	18N03P24C03W	18N03P24C06S	18N03P24C09Q	18N03P24C12M
18N03P24025L	18N03P24C03X	18N03P24C06T	18N03P24C09R	18N03P24C12N
18N03P24025M	18N03P24C03Y	18N03P24C06U	18N03P24C09S	18N03P24C12O
18N03P24025N	18N03P24C03Z	18N03P24C06V	18N03P24C09T	18N03P24C12P
18N03P24025O	18N03P24C04A	18N03P24C06W	18N03P24C09U	18N03P24C12Q
18N03P24025P	18N03P24C04B	18N03P24C06X	18N03P24C09V	18N03P24C12R
18N03P24025Q	18N03P24C04C	18N03P24C06Y	18N03P24C09W	18N03P24C12S
18N03P24025R	18N03P24C04D	18N03P24C06Z	18N03P24C09X	18N03P24C12T
18N03P24025S	18N03P24C04E	18N03P24C07A	18N03P24C09Y	18N03P24C12U
18N03P24025T	18N03P24C04F	18N03P24C07B	18N03P24C09Z	18N03P24C12V
18N03P24025U	18N03P24C04G	18N03P24C07C	18N03P24C10A	18N03P24C12W
18N03P24025V	18N03P24C04H	18N03P24C07D	18N03P24C10B	18N03P24C12X
18N03P24025W	18N03P24C04I	18N03P24C07E	18N03P24C10C	18N03P24C12Y
18N03P24025X	18N03P24C04J	18N03P24C07F	18N03P24C10D	18N03P24C12Z
18N03P24025Y	18N03P24C04K	18N03P24C07G	18N03P24C10E	18N03P24C13A
18N03P24025Z	18N03P24C04L	18N03P24C07H	18N03P24C10F	18N03P24C13B
	18N03P24C04M	18N03P24C07I	18N03P24C10G	18N03P24C13C
	18N03P24C04N	18N03P24C07J	18N03P24C10H	18N03P24C13D
	18N03P24C04O	18N03P24C07K	18N03P24C10I	18N03P24C13E
	18N03P24C04P	18N03P24C07L	18N03P24C10J	18N03P24C13F
	18N03P24C04Q	18N03P24C07M	18N03P24C10K	18N03P24C13G
	18N03P24C04R	18N03P24C07N	18N03P24C10L	18N03P24C13H
	18N03P24C04S	18N03P24C07O	18N03P24C10M	18N03P24C13I
	18N03P24C04T	18N03P24C07P	18N03P24C10N	18N03P24C13J
	18N03P24C04U	18N03P24C07Q	18N03P24C10O	18N03P24C13K
	18N03P24C04V	18N03P24C07R	18N03P24C10P	18N03P24C13L
	18N03P24C04W	18N03P24C07S	18N03P24C10Q	18N03P24C13M
	18N03P24C04X	18N03P24C07T	18N03P24C10R	18N03P24C13N
	18N03P24C04Y	18N03P24C07U	18N03P24C10S	18N03P24C13O
	18N03P24C04Z	18N03P24C07V	18N03P24C10T	18N03P24C13P
	18N03P24C05A	18N03P24C07W	18N03P24C10U	18N03P24C13Q
	18N03P24C05B	18N03P24C07X	18N03P24C10V	18N03P24C13R
	18N03P24C05C	18N03P24C07Y	18N03P24C10W	18N03P24C13S
	18N03P24C05D	18N03P24C07Z	18N03P24C10X	18N03P24C13T
	18N03P24C05E	18N03P24C08A	18N03P24C10Y	18N03P24C13U
	18N03P24C05F	18N03P24C08B	18N03P24C10Z	18N03P24C13V
	18N03P24C05G	18N03P24C08C	18N03P24C11A	18N03P24C13W
	18N03P24C05H	18N03P24C08D	18N03P24C11B	18N03P24C13X
	18N03P24C05I	18N03P24C08E	18N03P24C11C	18N03P24C13Y
	18N03P24C05J	18N03P24C08F	18N03P24C11D	18N03P24C13Z
	18N03P24C05K	18N03P24C08G	18N03P24C11E	18N03P24C14A
	18N03P24C05L	18N03P24C08H	18N03P24C11F	18N03P24C14B
	18N03P24C05M	18N03P24C08I	18N03P24C11G	18N03P24C14C
	18N03P24C05N	18N03P24C08J	18N03P24C11H	18N03P24C14D
	18N03P24C05O	18N03P24C08K	18N03P24C11I	18N03P24C14E
	18N03P24C05P	18N03P24C08L	18N03P24C11J	18N03P24C14F
	18N03P24C05Q	18N03P24C08M	18N03P24C11K	18N03P24C14G
	18N03P24C05R	18N03P24C08N	18N03P24C11L	18N03P24C14H
	18N03P24C05S	18N03P24C08O	18N03P24C11M	18N03P24C14I
	18N03P24C05T	18N03P24C08P	18N03P24C11N	18N03P24C14J
	18N03P24C05U	18N03P24C08Q	18N03P24C11O	18N03P24C14K
	18N03P24C05V	18N03P24C08R	18N03P24C11P	18N03P24C14L
	18N03P24C05W	18N03P24C08S	18N03P24C11Q	18N03P24C14M
	18N03P24C05X	18N03P24C08T	18N03P24C11R	18N03P24C14N
	18N03P24C05Y	18N03P24C08U	18N03P24C11S	18N03P24C14O
	18N03P24C05Z	18N03P24C08V	18N03P24C11T	18N03P24C14P
		18N03P24C08W		18N03P24C14Q



**OTROSÍ NO. 11 AL CONTRATO No. 070-89, SUSCRITO ENTRE LA AGENCIA NACIONAL DE
MINERÍA Y ACERÍAS PAZ DEL RÍO**

Celda	Celda	Celda	Celda	Celda
18N03P24C14R	18N03P24C17N	18N03P24C20M	18N03P24C258	18N03P24D02V
18N03P24C14S	18N03P24C17P	18N03P24C20N	18N03P24C25C	18N03P24D02Z
18N03P24C14T	18N03P24C17Q	18N03P24C20P	18N03P24C25D	18N03P24D03F
18N03P24C14U	18N03P24C17R	18N03P24C20Q	18N03P24C25E	18N03P24D03G
18N03P24C14V	18N03P24C17S	18N03P24C20R	18N03P24C25F	18N03P24D03K
18N03P24C14W	18N03P24C17T	18N03P24C20S	18N03P24C25G	18N03P24D03L
18N03P24C14X	18N03P24C17U	18N03P24C20T	18N03P24C25H	18N03P24D03M
18N03P24C14Y	18N03P24C17V	18N03P24C20U	18N03P24C25I	18N03P24D03Q
18N03P24C14Z	18N03P24C17W	18N03P24C20V	18N03P24C25J	18N03P24D03R
18N03P24C15A	18N03P24C17X	18N03P24C20W	18N03P24C25K	18N03P24D03S
18N03P24C15B	18N03P24C17Y	18N03P24C20X	18N03P24C25L	18N03P24D03T
18N03P24C15C	18N03P24C17Z	18N03P24C20Y	18N03P24C25M	18N03P24D03V
18N03P24C15D	18N03P24C18A	18N03P24C20Z	18N03P24C25N	18N03P24D03W
18N03P24C15E	18N03P24C18B	18N03P24C21A	18N03P24C25P	18N03P24D03X
18N03P24C15F	18N03P24C18C	18N03P24C21B	18N03P24C25Q	18N03P24D03Y
18N03P24C15G	18N03P24C18D	18N03P24C21C	18N03P24C25R	18N03P24D06A
18N03P24C15H	18N03P24C18E	18N03P24C21D	18N03P24C25S	18N03P24D06B
18N03P24C15I	18N03P24C18F	18N03P24C21E	18N03P24C25T	18N03P24D06C
18N03P24C15J	18N03P24C18G	18N03P24C21F	18N03P24C25U	18N03P24D06D
18N03P24C15K	18N03P24C18H	18N03P24C21G	18N03P24C25V	18N03P24D06E
18N03P24C15L	18N03P24C18I	18N03P24C21H	18N03P24C25W	18N03P24D06F
18N03P24C15M	18N03P24C18J	18N03P24C21I	18N03P24C25X	18N03P24D06G
18N03P24C15N	18N03P24C18K	18N03P24C21J	18N03P24C25Y	18N03P24D06H
18N03P24C15P	18N03P24C18L	18N03P24C21K	18N03P24C25Z	18N03P24D06I
18N03P24C15Q	18N03P24C18M	18N03P24C21L	18N03P24D01A	18N03P24D06J
18N03P24C15R	18N03P24C18N	18N03P24C21M	18N03P24D01B	18N03P24D06K
18N03P24C15S	18N03P24C18P	18N03P24C21N	18N03P24D01C	18N03P24D06L
18N03P24C15T	18N03P24C18Q	18N03P24C21P	18N03P24D01D	18N03P24D06M
18N03P24C15U	18N03P24C18R	18N03P24C22A	18N03P24D01E	18N03P24D06N
18N03P24C15V	18N03P24C18S	18N03P24C22B	18N03P24D01F	18N03P24D06P
18N03P24C15W	18N03P24C18T	18N03P24C22C	18N03P24D01G	18N03P24D06Q
18N03P24C15X	18N03P24C18U	18N03P24C22D	18N03P24D01H	18N03P24D06R
18N03P24C15Y	18N03P24C18V	18N03P24C22E	18N03P24D01I	18N03P24D06S
18N03P24C15Z	18N03P24C18Y	18N03P24C22F	18N03P24D01J	18N03P24D06T
18N03P24C16A	18N03P24C18Z	18N03P24C22G	18N03P24D01K	18N03P24D06U
18N03P24C16B	18N03P24C19A	18N03P24C22H	18N03P24D01L	18N03P24D06V
18N03P24C16C	18N03P24C19B	18N03P24C22I	18N03P24D01M	18N03P24D06W
18N03P24C16D	18N03P24C19C	18N03P24C22J	18N03P24D01N	18N03P24D06X
18N03P24C16E	18N03P24C19D	18N03P24C22K	18N03P24D01P	18N03P24D06Y
18N03P24C16F	18N03P24C19E	18N03P24C22L	18N03P24D01Q	18N03P24D06Z
18N03P24C16G	18N03P24C19F	18N03P24C22M	18N03P24D01R	18N03P24D07A
18N03P24C16H	18N03P24C19G	18N03P24C22N	18N03P24D01S	18N03P24D07B
18N03P24C16I	18N03P24C19H	18N03P24C22P	18N03P24D01T	18N03P24D07C
18N03P24C16J	18N03P24C19I	18N03P24C22Q	18N03P24D01U	18N03P24D07D
18N03P24C16K	18N03P24C19J	18N03P24C22R	18N03P24D01V	18N03P24D07E
18N03P24C16L	18N03P24C19K	18N03P24C22S	18N03P24D01W	18N03P24D07F
18N03P24C16M	18N03P24C19L	18N03P24C22T	18N03P24D01X	18N03P24D07G
18N03P24C16N	18N03P24C19M	18N03P24C22U	18N03P24D01Y	18N03P24D07H
18N03P24C16P	18N03P24C19N	18N03P24C23A	18N03P24D01Z	18N03P24D07I
18N03P24C16Q	18N03P24C19P	18N03P24C23E	18N03P24D02A	18N03P24D07J
18N03P24C16R	18N03P24C19Q	18N03P24C23F	18N03P24D02B	18N03P24D07K
18N03P24C16S	18N03P24C19R	18N03P24C23K	18N03P24D02C	18N03P24D07L
18N03P24C16T	18N03P24C19S	18N03P24C23Q	18N03P24D02D	18N03P24D07M
18N03P24C16U	18N03P24C19T	18N03P24C24A	18N03P24D02E	18N03P24D07N
18N03P24C16V	18N03P24C19U	18N03P24C24B	18N03P24D02F	18N03P24D07P
18N03P24C16W	18N03P24C19V	18N03P24C24C	18N03P24D02G	18N03P24D07Q
18N03P24C16X	18N03P24C19W	18N03P24C24D	18N03P24D02H	18N03P24D07R
18N03P24C16Y	18N03P24C19X	18N03P24C24E	18N03P24D02I	18N03P24D07S
18N03P24C16Z	18N03P24C19Y	18N03P24C24F	18N03P24D02J	18N03P24D07T
18N03P24C17A	18N03P24C19Z	18N03P24C24G	18N03P24D02K	18N03P24D07U
18N03P24C17B	18N03P24C20A	18N03P24C24H	18N03P24D02L	18N03P24D07V
18N03P24C17C	18N03P24C20B	18N03P24C24I	18N03P24D02M	18N03P24D07W
18N03P24C17D	18N03P24C20C	18N03P24C24J	18N03P24D02N	18N03P24D07X
18N03P24C17E	18N03P24C20D	18N03P24C24L	18N03P24D02P	18N03P24D07Y
18N03P24C17F	18N03P24C20E	18N03P24C24M	18N03P24D02Q	18N03P24D07Z
18N03P24C17G	18N03P24C20F	18N03P24C24N	18N03P24D02R	18N03P24D08A
18N03P24C17H	18N03P24C20G	18N03P24C24P	18N03P24D02S	18N03P24D08B
18N03P24C17I	18N03P24C20H	18N03P24C24S	18N03P24D02T	18N03P24D08C
18N03P24C17J	18N03P24C20I	18N03P24C24T	18N03P24D02U	18N03P24D08D
18N03P24C17K	18N03P24C20J	18N03P24C24U	18N03P24D02V	18N03P24D08F
18N03P24C17L	18N03P24C20K	18N03P24C24Z	18N03P24D02W	18N03P24D08G
18N03P24C17M	18N03P24C20L	18N03P24C25A	18N03P24D02X	18N03P24D08H



OTROSÍ NO. 11 AL CONTRATO No. 070-89, SUSCRITO ENTRE LA AGENCIA NACIONAL DE MINERÍA Y ACERÍAS PAZ DEL RÍO

Celda	Celda	Celda	Celda	Celda
18N03P24D08K	18N03P24D11Q	18N03P24D12I	18N03P24D16J	18N03P24D21C
18N03P24D08L	18N03P24D11R	18N03P24D12K	18N03P24D16K	18N03P24D21F
18N03P24D08Q	18N03P24D11S	18N03P24D12L	18N03P24D16L	18N03P24D21G
18N03P24D11A	18N03P24D11T	18N03P24D12M	18N03P24D16M	18N03P24D21K
18N03P24D11B	18N03P24D11U	18N03P24D12Q	18N03P24D16N	18N03P24D21L
18N03P24D11C	18N03P24D11V	18N03P24D12R	18N03P24D16P	18N03P24D21Q
18N03P24D11D	18N03P24D11W	18N03P24D12S	18N03P24D16Q	18N03P24D21V
18N03P24D11E	18N03P24D11X	18N03P24D12V	18N03P24D16R	18N03P24G05A
18N03P24D11F	18N03P24D11Y	18N03P24D12W	18N03P24D16S	18N03P24G05B
18N03P24D11G	18N03P24D11Z	18N03P24D15A	18N03P24D16T	18N03P24G05C
18N03P24D11H	18N03P24D12A	18N03P24D16B	18N03P24D16V	18N03P24G05D
18N03P24D11I	18N03P24D12B	18N03P24D16C	18N03P24D16W	18N03P24G05E
18N03P24D11J	18N03P24D12C	18N03P24D16D	18N03P24D16X	18N03P24G05G
18N03P24D11K	18N03P24D12D	18N03P24D16E	18N03P24D16Y	18N03P24G05H
18N03P24D11L	18N03P24D12E	18N03P24D16F	18N03P24D17A	18N03P24G05I
18N03P24D11M	18N03P24D12F	18N03P24D16G	18N03P24D17F	18N03P24G05M
18N03P24D11N	18N03P24D12G	18N03P24D16H	18N03P24D21A	18N03P24G05N
18N03P24D11P	18N03P24D12H	18N03P24D16I	18N03P24D21B	

- **Polígono 2:** El Polígono 2 comprende 113 celdas, demarcadas dentro de 50 vértices, con un área de 138,4218 hectáreas, definido como proyecto Comalta Este. Las coordenadas descritas en la siguiente tabla corresponden a los vértices del Polígono 2 en el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss-Kruger (Transversa de Mercator), Magna Colombia Bogotá.

Vértices de delimitación del polígono 2

Vértice	Latitud	Longitud	Vértice	Latitud	Longitud	Vértice	Latitud	Longitud
1	6,05600	-72,64600	18	6,05700	-72,63800	35	6,05800	-72,65000
2	6,06500	-72,64600	19	6,05700	-72,63900	36	6,05900	-72,65000
3	6,06500	-72,64500	20	6,05700	-72,64000	37	6,06000	-72,65000
4	6,06500	-72,64400	21	6,05700	-72,64100	38	6,06000	-72,65100
5	6,06500	-72,64300	22	6,05700	-72,64200	39	6,06000	-72,65200
6	6,06500	-72,64200	23	6,05600	-72,64200	40	6,06100	-72,65200
7	6,06500	-72,64100	24	6,05600	-72,64300	41	6,06200	-72,65200
8	6,06400	-72,64100	25	6,05600	-72,64400	42	6,06300	-72,65200
9	6,06400	-72,64000	26	6,05600	-72,64500	43	6,06300	-72,65100
10	6,06400	-72,63900	27	6,05600	-72,64600	44	6,06400	-72,65100
11	6,06400	-72,63800	28	6,05600	-72,64700	45	6,06500	-72,65100
12	6,06300	-72,63800	29	6,05500	-72,64700	46	6,06500	-72,65000
13	6,06200	-72,63800	30	6,05500	-72,64800	47	6,06600	-72,65000
14	6,06100	-72,63800	31	6,05600	-72,64800	48	6,06600	-72,64900
15	6,06000	-72,63800	32	6,05600	-72,64900	49	6,05800	-72,64800
16	6,05900	-72,63800	33	6,05700	-72,64900	50	6,05800	-72,64700
17	6,05800	-72,63800	34	6,05700	-72,65000			

Listado de celdas contenidas en el polígono 2, con un total de 113 celdas.

Celda	Área (ha)	Celda	Área (ha)	Celda	Área (ha)
18N03P24F15E	1,2250	18N03P24G11D	1,2250	18N03P24G11T	1,2250
18N03P24F15F	1,2250	18N03P24G11E	1,2250	18N03P24G11U	1,2250
18N03P24F15H	1,2250	18N03P24G11F	1,2250	18N03P24G11V	1,2250
18N03P24F15P	1,2250	18N03P24G11G	1,2250	18N03P24G11W	1,2250
18N03P24F15T	1,2250	18N03P24G11H	1,2250	18N03P24G11X	1,2250
18N03P24F15U	1,2250	18N03P24G11I	1,2250	18N03P24G11Y	1,2250
18N03P24F15V	1,2250	18N03P24G11J	1,2250	18N03P24G11Z	1,2250
18N03P24F15Z	1,2250	18N03P24G11K	1,2250	18N03P24G12A	1,2250
18N03P24G06V	1,2250	18N03P24G11L	1,2250	18N03P24G12B	1,2250
18N03P24G06W	1,2250	18N03P24G11M	1,2250	18N03P24G12C	1,2250
18N03P24G06X	1,2250	18N03P24G11N	1,2250	18N03P24G12D	1,2250
18N03P24G06Y	1,2250	18N03P24G11P	1,2250	18N03P24G12F	1,2250
18N03P24G11A	1,2250	18N03P24G11Q	1,2250	18N03P24G12G	1,2250
18N03P24G11B	1,2250	18N03P24G11R	1,2250	18N03P24G12H	1,2250
18N03P24G11C	1,2250	18N03P24G11S	1,2250	18N03P24G12I	1,2250



OTROSÍ NO. 11 AL CONTRATO No. 070-89, SUSCRITO ENTRE LA AGENCIA NACIONAL DE MINERÍA Y ACERÍAS PAZ DEL RÍO

Celda	Área (ha)
18N03P24G12I	1,2250
18N03P24G12K	1,2250
18N03P24G12L	1,2250
18N03P24G12M	1,2250
18N03P24G12N	1,2250
18N03P24G12P	1,2250
18N03P24G12Q	1,2250
18N03P24G12R	1,2250
18N03P24G12S	1,2250
18N03P24G12T	1,2250
18N03P24G12U	1,2250
18N03P24G12V	1,2250
18N03P24G12W	1,2250
18N03P24G12X	1,2250
18N03P24G12Y	1,2250
18N03P24G12Z	1,2250
18N03P24G13F	1,2250
18N03P24G13G	1,2250
18N03P24G13K	1,2250
18N03P24G13L	1,2250
18N03P24G13Q	1,2250
18N03P24G13R	1,2250
18N03P24G13V	1,2250

Celda	Área (ha)
18N03P24G13W	1,2250
18N03P24G16A	1,2250
18N03P24G16B	1,2250
18N03P24G16C	1,2250
18N03P24G16D	1,2250
18N03P24G16E	1,2250
18N03P24G16F	1,2250
18N03P24G16G	1,2250
18N03P24G16H	1,2250
18N03P24G16I	1,2250
18N03P24G16J	1,2250
18N03P24G16K	1,2250
18N03P24G16L	1,2250
18N03P24G16M	1,2250
18N03P24G16N	1,2250
18N03P24G16P	1,2250
18N03P24G16R	1,2250
18N03P24G16S	1,2250
18N03P24G16T	1,2250
18N03P24G16U	1,2250
18N03P24G16X	1,2250
18N03P24G17A	1,2250
18N03P24G17B	1,2250

Celda	Área (ha)
18N03P24G17C	1,2250
18N03P24G17D	1,2250
18N03P24G17E	1,2250
18N03P24G17F	1,2250
18N03P24G17G	1,2250
18N03P24G17H	1,2250
18N03P24G17I	1,2250
18N03P24G17J	1,2250
18N03P24G17K	1,2250
18N03P24G17L	1,2250
18N03P24G17M	1,2250
18N03P24G17N	1,2250
18N03P24G17P	1,2250
18N03P24G17Q	1,2250
18N03P24G17R	1,2250
18N03P24G17S	1,2250
18N03P24G18A	1,2250
18N03P24G18B	1,2250
18N03P24G18F	1,2250
18N03P24G18G	1,2250
18N03P24G18K	1,2250
18N03P24G18L	1,2250

- **Polígono 3:** El Polígono 3, tiene 1579,7806 hectáreas, demarcadas dentro de 194 vértices y 1313 celdas asociadas, reúne dentro de su área los proyectos El Tambor, El Rincón, Costa Rica y el área de Infraestructura (ver parágrafo 2). Las coordenadas descritas en la siguiente tabla corresponden a los vértices del Polígono 3 en el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss- Kruger (Transversa de Mercator), Magna Colombia Bogotá.

Vértices de delimitación del polígono 3

Vértice	Latitud	Longitud
1	6,07500	-72,67700
2	6,07400	-72,67700
3	6,07400	-72,67600
4	6,07400	-72,67500
5	6,07300	-72,67500
6	6,07300	-72,67400
7	6,07300	-72,67300
8	6,07200	-72,67300
9	6,07200	-72,67200
10	6,07200	-72,67100
11	6,07100	-72,67100
12	6,07100	-72,67000
13	6,07100	-72,66900
14	6,07000	-72,66900
15	6,07000	-72,66800
16	6,07000	-72,66700
17	6,06900	-72,66700
18	6,06900	-72,66600
19	6,06900	-72,66500
20	6,06800	-72,66500
21	6,06800	-72,66400
22	6,06800	-72,66300
23	6,06700	-72,66300
24	6,06700	-72,66200
25	6,06700	-72,66100
26	6,06600	-72,66100
27	6,06600	-72,66000
28	6,06600	-72,65900
29	6,06500	-72,65900
30	6,06500	-72,65800
31	6,06500	-72,65700

Vértice	Latitud	Longitud
32	6,06400	-72,65700
33	6,06300	-72,65700
34	6,06200	-72,65700
35	6,06200	-72,65600
36	6,06100	-72,65600
37	6,06000	-72,65600
38	6,05900	-72,65600
39	6,05800	-72,65600
40	6,05800	-72,65500
41	6,05800	-72,65400
42	6,05700	-72,65400
43	6,05600	-72,65400
44	6,05500	-72,65400
45	6,05500	-72,65300
46	6,05400	-72,65300
47	6,05300	-72,65300
48	6,05200	-72,65300
49	6,05100	-72,65300
50	6,05000	-72,65300
51	6,05000	-72,65200
52	6,04900	-72,65200
53	6,04800	-72,65200
54	6,04700	-72,65200
55	6,04700	-72,65100
56	6,04600	-72,65100
57	6,04500	-72,65100
58	6,04500	-72,65000
59	6,04500	-72,64900
60	6,04400	-72,64900
61	6,04400	-72,64800
62	6,04400	-72,64700

Vértice	Latitud	Longitud
63	6,04700	-72,64900
64	6,04700	-72,64800
65	6,04700	-72,64700
66	6,04700	-72,64600
67	6,04600	-72,64600
68	6,04600	-72,64500
69	6,04600	-72,64400
70	6,04700	-72,64400
71	6,04679	-72,64400
72	6,04100	-72,64778
73	6,04100	-72,64800
74	6,04100	-72,64900
75	6,04100	-72,65000
76	6,04000	-72,65000
77	6,04000	-72,65100
78	6,04000	-72,65200
79	6,04000	-72,65300
80	6,03900	-72,65300
81	6,03900	-72,65400
82	6,03900	-72,65500
83	6,03900	-72,65600
84	6,03800	-72,65600
85	6,03800	-72,65700
86	6,03800	-72,65800
87	6,03700	-72,65800
88	6,03700	-72,65900
89	6,03700	-72,66000
90	6,03700	-72,66100
91	6,03600	-72,66100
92	6,03600	-72,66000
93	6,03500	-72,66000

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OTROSÍ NO. 11 AL CONTRATO No. 070-89, SUSCRITO ENTRE LA AGENCIA NACIONAL DE MINERÍA Y ACERÍAS PAZ DEL RÍO

Vértice	Latitud	Longitud
94	6,03400	-72,66000
95	6,03400	-72,65900
96	6,03300	-72,65900
97	6,03200	-72,65900
98	6,03200	-72,66000
99	6,03100	-72,66000
100	6,03100	-72,66100
101	6,03000	-72,66100
102	6,03000	-72,66200
103	6,03000	-72,66300
104	6,02900	-72,66300
105	6,02900	-72,66400
106	6,02800	-72,66400
107	6,02800	-72,66500
108	6,02800	-72,66600
109	6,02700	-72,66600
110	6,02700	-72,66700
111	6,02600	-72,66700
112	6,02600	-72,66800
113	6,02500	-72,66800
114	6,02500	-72,66900
115	6,02500	-72,67000
116	6,02400	-72,67000
117	6,02400	-72,67100
118	6,02300	-72,67100
119	6,02200	-72,67100
120	6,02200	-72,67200
121	6,02200	-72,67300
122	6,02200	-72,67400
123	6,02100	-72,67400
124	6,02100	-72,67500
125	6,02000	-72,67500
126	6,02000	-72,67600
127	6,01900	-72,67600
128	6,01900	-72,67700

Vértice	Latitud	Longitud
129	6,01800	-72,67700
130	6,01800	-72,67800
131	6,01800	-72,67900
132	6,01900	-72,67900
133	6,02000	-72,67900
134	6,02000	-72,68000
135	6,02100	-72,68000
136	6,02200	-72,68000
137	6,02200	-72,68100
138	6,02300	-72,68100
139	6,02400	-72,68100
140	6,02400	-72,68200
141	6,02500	-72,68200
142	6,02600	-72,68200
143	6,02700	-72,68200
144	6,02700	-72,68300
145	6,02800	-72,68300
146	6,02900	-72,68300
147	6,03000	-72,68300
148	6,03000	-72,68400
149	6,03100	-72,68400
150	6,03200	-72,68400
151	6,03200	-72,68500
152	6,03300	-72,68500
153	6,03400	-72,68500
154	6,03400	-72,68600
155	6,03500	-72,68600
156	6,03600	-72,68600
157	6,03600	-72,68700
158	6,03700	-72,68700
159	6,03800	-72,68700
160	6,03800	-72,68800
161	6,03900	-72,68800
162	6,03900	-72,68900
163	6,03900	-72,69000

Vértice	Latitud	Longitud
164	6,04000	-72,68400
165	6,04000	-72,68300
166	6,04100	-72,68300
167	6,04100	-72,68200
168	6,04100	-72,68200
169	6,04200	-72,68100
170	6,04300	-72,68100
171	6,04400	-72,68100
172	6,04500	-72,68100
173	6,04600	-72,68100
174	6,04600	-72,68000
175	6,04700	-72,68000
176	6,04800	-72,68000
177	6,04900	-72,68000
178	6,04900	-72,68100
179	6,04900	-72,68200
180	6,04900	-72,68300
181	6,04900	-72,68400
182	6,05000	-72,68400
183	6,05000	-72,68500
184	6,05000	-72,68600
185	6,05100	-72,68600
186	6,05100	-72,68700
187	6,05100	-72,68800
188	6,05200	-72,68800
189	6,05200	-72,68900
190	6,05200	-72,68900
191	6,07415	-72,67817
192	6,07500	-72,67900
193	6,07500	-72,67900
194	6,07500	-72,67800

Listado de celdas asociadas al polígono 3, comprende un total de 1313 celdas.

Celda
18N03P24E04Z
18N03P24E05A
18N03P24E05B
18N03P24E05C
18N03P24E05G
18N03P24E05H
18N03P24E05I
18N03P24E05J
18N03P24E05K
18N03P24E05L
18N03P24E05M
18N03P24E05N
18N03P24E05P
18N03P24E05Q
18N03P24E05R
18N03P24E05S
18N03P24E05T
18N03P24E05U
18N03P24E05V
18N03P24E05W
18N03P24E05X
18N03P24E05Y
18N03P24E05Z
18N03P24E09E
18N03P24E09I
18N03P24E09J
18N03P24E09N
18N03P24E09P
18N03P24E09S
18N03P24E09T
18N03P24E09U
18N03P24E09X
18N03P24E09Y

Celda
18N03P24E09Z
18N03P24E10A
18N03P24E10B
18N03P24E10C
18N03P24E10D
18N03P24E10E
18N03P24E10F
18N03P24E10G
18N03P24E10H
18N03P24E10I
18N03P24E10J
18N03P24E10K
18N03P24E10L
18N03P24E10M
18N03P24E10N
18N03P24E10P
18N03P24E10Q
18N03P24E10R
18N03P24E10S
18N03P24E10T
18N03P24E10U
18N03P24E10V
18N03P24E10W
18N03P24E10X
18N03P24E10Y
18N03P24E10Z
18N03P24E13Z
18N03P24E14B
18N03P24E14C
18N03P24E14D
18N03P24E14E
18N03P24E14G
18N03P24E14H

Celda
18N03P24E14I
18N03P24E14J
18N03P24E14K
18N03P24E14L
18N03P24E14M
18N03P24E14N
18N03P24E14P
18N03P24E14Q
18N03P24E14R
18N03P24E14S
18N03P24E14T
18N03P24E14U
18N03P24E14V
18N03P24E14W
18N03P24E14X
18N03P24E14Y
18N03P24E14Z
18N03P24E15A
18N03P24E15B
18N03P24E15C
18N03P24E15D
18N03P24E15E
18N03P24E15F
18N03P24E15G
18N03P24E15H
18N03P24E15I
18N03P24E15J
18N03P24E15K
18N03P24E15L
18N03P24E15M
18N03P24E15N
18N03P24E15P
18N03P24E15Q

Celda
18N03P24E15R
18N03P24E15S
18N03P24E15T
18N03P24E15U
18N03P24E15V
18N03P24E15W
18N03P24E15X
18N03P24E15Y
18N03P24E15Z
18N03P24E18E
18N03P24E18I
18N03P24E18J
18N03P24E18N
18N03P24E18P
18N03P24E18S
18N03P24E18T
18N03P24E18U
18N03P24E18X
18N03P24E18Y
18N03P24E18Z
18N03P24E19A
18N03P24E19B
18N03P24E19C
18N03P24E19D
18N03P24E19E
18N03P24E19F
18N03P24E19G
18N03P24E19H
18N03P24E19I
18N03P24E19J
18N03P24E19K
18N03P24E19L
18N03P24E19M

Celda
18N03P24E19N
18N03P24E19P
18N03P24E19Q
18N03P24E19R
18N03P24E19S
18N03P24E19T
18N03P24E19U
18N03P24E19V
18N03P24E19W
18N03P24E19X
18N03P24E19Y
18N03P24E19Z
18N03P24E20A
18N03P24E20B
18N03P24E20C
18N03P24E20D
18N03P24E20E
18N03P24E20F
18N03P24E20G
18N03P24E20H
18N03P24E20I
18N03P24E20J
18N03P24E20K
18N03P24E20L
18N03P24E20M
18N03P24E20N
18N03P24E20P
18N03P24E20Q
18N03P24E20R
18N03P24E20S
18N03P24E20T
18N03P24E20U
18N03P24E20V



OTROSÍ NO. 11 AL CONTRATO No. 070-89, SUSCRITO ENTRE LA AGENCIA NACIONAL DE MINERÍA Y ACERÍAS PAZ DEL RÍO

Celda	Celda	Celda	Celda	Celda
18N03P24E20W	18N03P24F01L	18N03P24F11B	18N03P24F13Y	18N03P24F18H
18N03P24E20X	18N03P24F01Q	18N03P24F11C	18N03P24F13Z	18N03P24F18I
18N03P24E20Y	18N03P24F01R	18N03P24F11D	18N03P24F14A	18N03P24F18J
18N03P24E20Z	18N03P24F01S	18N03P24F11E	18N03P24F14B	18N03P24F18K
18N03P24E21B	18N03P24F01T	18N03P24F11F	18N03P24F14C	18N03P24F18L
18N03P24E21C	18N03P24F01V	18N03P24F11G	18N03P24F14F	18N03P24F18M
18N03P24E21D	18N03P24F01W	18N03P24F11H	18N03P24F14G	18N03P24F18N
18N03P24E21E	18N03P24F01X	18N03P24F11I	18N03P24F14H	18N03P24F18P
18N03P24E21G	18N03P24F01Y	18N03P24F11J	18N03P24F14K	18N03P24F18Q
18N03P24E21H	18N03P24F01Z	18N03P24F11K	18N03P24F14L	18N03P24F18R
18N03P24E21J	18N03P24F02V	18N03P24F11L	18N03P24F14M	18N03P24F18S
18N03P24E21J	18N03P24F05A	18N03P24F11M	18N03P24F14Q	18N03P24F18T
18N03P24E21K	18N03P24F06B	18N03P24F11N	18N03P24F14R	18N03P24F18U
18N03P24E21L	18N03P24F06C	18N03P24F11P	18N03P24F14V	18N03P24F18V
18N03P24E21M	18N03P24F06D	18N03P24F11Q	18N03P24F14W	18N03P24F18W
18N03P24E21N	18N03P24F06E	18N03P24F11R	18N03P24F16A	18N03P24F18X
18N03P24E21P	18N03P24F06F	18N03P24F11S	18N03P24F16B	18N03P24F18Y
18N03P24E21S	18N03P24F06G	18N03P24F11T	18N03P24F16C	18N03P24F18Z
18N03P24E21T	18N03P24F06H	18N03P24F11U	18N03P24F16D	18N03P24F19A
18N03P24E21U	18N03P24F06I	18N03P24F11V	18N03P24F16E	18N03P24F19B
18N03P24E21Z	18N03P24F06J	18N03P24F11W	18N03P24F16F	18N03P24F19F
18N03P24E24A	18N03P24F06K	18N03P24F11X	18N03P24F16G	18N03P24F19G
18N03P24E24B	18N03P24F06L	18N03P24F11Y	18N03P24F16H	18N03P24F19K
18N03P24E24C	18N03P24F06M	18N03P24F11Z	18N03P24F16I	18N03P24F19L
18N03P24E24D	18N03P24F06N	18N03P24F12A	18N03P24F16J	18N03P24F19M
18N03P24E24E	18N03P24F06P	18N03P24F12B	18N03P24F16K	18N03P24F19N
18N03P24E24F	18N03P24F06Q	18N03P24F12C	18N03P24F16L	18N03P24F19Q
18N03P24E24G	18N03P24F06R	18N03P24F12D	18N03P24F16M	18N03P24F19R
18N03P24E24H	18N03P24F06S	18N03P24F12E	18N03P24F16N	18N03P24F19S
18N03P24E24I	18N03P24F06T	18N03P24F12F	18N03P24F16P	18N03P24F19T
18N03P24E24J	18N03P24F06U	18N03P24F12G	18N03P24F16Q	18N03P24F19V
18N03P24E24K	18N03P24F06V	18N03P24F12H	18N03P24F16R	18N03P24F19W
18N03P24E24L	18N03P24F06W	18N03P24F12I	18N03P24F16S	18N03P24F19X
18N03P24E24M	18N03P24F06X	18N03P24F12J	18N03P24F16T	18N03P24F19Y
18N03P24E24N	18N03P24F06Y	18N03P24F12K	18N03P24F16U	18N03P24F21A
18N03P24E24P	18N03P24F06Z	18N03P24F12L	18N03P24F16V	18N03P24F21B
18N03P24E24Q	18N03P24F07A	18N03P24F12M	18N03P24F16W	18N03P24F21C
18N03P24E24R	18N03P24F07B	18N03P24F12N	18N03P24F16X	18N03P24F21D
18N03P24E24S	18N03P24F07C	18N03P24F12P	18N03P24F16Y	18N03P24F21E
18N03P24E24T	18N03P24F07F	18N03P24F12Q	18N03P24F16Z	18N03P24F21F
18N03P24E24U	18N03P24F07G	18N03P24F12R	18N03P24F17A	18N03P24F21G
18N03P24E24V	18N03P24F07H	18N03P24F12S	18N03P24F17B	18N03P24F21H
18N03P24E24W	18N03P24F07I	18N03P24F12T	18N03P24F17C	18N03P24F21I
18N03P24E24X	18N03P24F07J	18N03P24F12U	18N03P24F17D	18N03P24F21J
18N03P24E24Y	18N03P24F07K	18N03P24F12V	18N03P24F17E	18N03P24F21K
18N03P24E24Z	18N03P24F07L	18N03P24F12W	18N03P24F17F	18N03P24F21L
18N03P24E25A	18N03P24F07M	18N03P24F12X	18N03P24F17G	18N03P24F21M
18N03P24E25B	18N03P24F07N	18N03P24F12Y	18N03P24F17H	18N03P24F21N
18N03P24E25C	18N03P24F07P	18N03P24F12Z	18N03P24F17I	18N03P24F21P
18N03P24E25D	18N03P24F07Q	18N03P24F13A	18N03P24F17J	18N03P24F21Q
18N03P24E25E	18N03P24F07R	18N03P24F13B	18N03P24F17K	18N03P24F21R
18N03P24E25F	18N03P24F07S	18N03P24F13C	18N03P24F17L	18N03P24F21S
18N03P24E25G	18N03P24F07T	18N03P24F13D	18N03P24F17M	18N03P24F21T
18N03P24E25H	18N03P24F07U	18N03P24F13E	18N03P24F17N	18N03P24F21U
18N03P24E25I	18N03P24F07V	18N03P24F13F	18N03P24F17P	18N03P24F21V
18N03P24E25J	18N03P24F07W	18N03P24F13G	18N03P24F17Q	18N03P24F21W
18N03P24E25K	18N03P24F07X	18N03P24F13H	18N03P24F17R	18N03P24F21X
18N03P24E25L	18N03P24F07Y	18N03P24F13I	18N03P24F17S	18N03P24F21Y
18N03P24E25M	18N03P24F07Z	18N03P24F13J	18N03P24F17T	18N03P24F21Z
18N03P24E25N	18N03P24F08K	18N03P24F13K	18N03P24F17U	18N03P24F22A
18N03P24E25P	18N03P24F08L	18N03P24F13L	18N03P24F17V	18N03P24F22B
18N03P24E25Q	18N03P24F08Q	18N03P24F13M	18N03P24F17W	18N03P24F22C
18N03P24E25R	18N03P24F08R	18N03P24F13N	18N03P24F17X	18N03P24F22D
18N03P24E25S	18N03P24F08S	18N03P24F13P	18N03P24F17Y	18N03P24F22E
18N03P24E25T	18N03P24F08T	18N03P24F13Q	18N03P24F17Z	18N03P24F22F
18N03P24E25U	18N03P24F08V	18N03P24F13R	18N03P24F18A	18N03P24F22G
18N03P24E25V	18N03P24F08W	18N03P24F13S	18N03P24F18B	18N03P24F22H
18N03P24E25W	18N03P24F08X	18N03P24F13T	18N03P24F18C	18N03P24F22I
18N03P24E25X	18N03P24F08Y	18N03P24F13U	18N03P24F18D	18N03P24F22J
18N03P24E25Y	18N03P24F08Z	18N03P24F13V	18N03P24F18E	18N03P24F22K
18N03P24E25Z	18N03P24F09V	18N03P24F13W	18N03P24F18F	18N03P24F22L
18N03P24F01K	18N03P24F11A	18N03P24F13X	18N03P24F18G	18N03P24F22M



OTROSÍ NO. 11 AL CONTRATO No. 070-89, SUSCRITO ENTRE LA AGENCIA NACIONAL DE MINERÍA Y ACERÍAS PAZ DEL RÍO

Celda	Celda	Celda	Celda	Celda
18N03P24J04T	18N03P24J08H	18N03P24J11E	18N03P24J14C	18N03P24J18I
18N03P24J04U	18N03P24J08I	18N03P24J11F	18N03P24J14D	18N03P24J18M
18N03P24J04V	18N03P24J08J	18N03P24J11G	18N03P24J14E	18N03P24J18N
18N03P24J04W	18N03P24J08K	18N03P24J11H	18N03P24J14F	18N03P24J18P
18N03P24J04X	18N03P24J08L	18N03P24J11I	18N03P24J14G	18N03P24J18Q
18N03P24J04Y	18N03P24J08M	18N03P24J11J	18N03P24J14H	18N03P24J18R
18N03P24J04Z	18N03P24J08N	18N03P24J11K	18N03P24J14I	18N03P24J18S
18N03P24J05A	18N03P24J08P	18N03P24J11L	18N03P24J14K	18N03P24J18T
18N03P24J05F	18N03P24J08Q	18N03P24J11M	18N03P24J14L	18N03P24J18U
18N03P24J05K	18N03P24J08R	18N03P24J11N	18N03P24J15A	18N03P24J18V
18N03P24J05Q	18N03P24J08S	18N03P24J11P	18N03P24J15B	18N03P24J18W
18N03P24J05R	18N03P24J08T	18N03P24J11Q	18N03P24J15A	18N03P24J18X
18N03P24J05V	18N03P24J08U	18N03P24J11R	18N03P24J15B	18N03P24J18Y
18N03P24J05W	18N03P24J08V	18N03P24J11S	18N03P24J15C	18N03P24J19F
18N03P24J05Z	18N03P24J08W	18N03P24J11T	18N03P24J15D	18N03P24J19K
18N03P24J06A	18N03P24J08X	18N03P24J11U	18N03P24J15E	18N03P24J21A
18N03P24J06B	18N03P24J08Y	18N03P24J11V	18N03P24J15F	18N03P24J21B
18N03P24J06C	18N03P24J08Z	18N03P24J11W	18N03P24J15G	18N03P24J21C
18N03P24J06D	18N03P24J09A	18N03P24J11X	18N03P24J15H	18N03P24J21D
18N03P24J06E	18N03P24J09B	18N03P24J11Y	18N03P24J15I	18N03P24J21E
18N03P24J06F	18N03P24J09C	18N03P24J11Z	18N03P24J15J	18N03P24J21F
18N03P24J06G	18N03P24J09D	18N03P24J12A	18N03P24J15K	18N03P24J21G
18N03P24J06H	18N03P24J09E	18N03P24J12B	18N03P24J15L	18N03P24J21H
18N03P24J06I	18N03P24J09F	18N03P24J12C	18N03P24J15M	18N03P24J21I
18N03P24J06J	18N03P24J09G	18N03P24J12D	18N03P24J15N	18N03P24J21J
18N03P24J06K	18N03P24J09H	18N03P24J12E	18N03P24J15P	18N03P24J21K
18N03P24J06L	18N03P24J09I	18N03P24J12F	18N03P24J15Q	18N03P24J21L
18N03P24J06M	18N03P24J09J	18N03P24J12G	18N03P24J15R	18N03P24J21M
18N03P24J06N	18N03P24J09K	18N03P24J12H	18N03P24J15S	18N03P24J21N
18N03P24J06P	18N03P24J09L	18N03P24J12I	18N03P24J15T	18N03P24J21P
18N03P24J06Q	18N03P24J09M	18N03P24J12J	18N03P24J15U	18N03P24J21Q
18N03P24J06R	18N03P24J09N	18N03P24J12K	18N03P24J15V	18N03P24J21R
18N03P24J06S	18N03P24J09P	18N03P24J12L	18N03P24J15W	18N03P24J21S
18N03P24J06T	18N03P24J09Q	18N03P24J12M	18N03P24J15X	18N03P24J21T
18N03P24J06U	18N03P24J09R	18N03P24J12N	18N03P24J15Y	18N03P24J21U
18N03P24J06V	18N03P24J09S	18N03P24J12P	18N03P24J15Z	18N03P24J21V
18N03P24J06W	18N03P24J09T	18N03P24J12Q	18N03P24J17A	18N03P24J21W
18N03P24J06X	18N03P24J09U	18N03P24J12R	18N03P24J17B	18N03P24J21X
18N03P24J06Y	18N03P24J09V	18N03P24J12S	18N03P24J17C	18N03P24J21Y
18N03P24J06Z	18N03P24J09W	18N03P24J12T	18N03P24J17D	18N03P24J21Z
18N03P24J07A	18N03P24J09X	18N03P24J12U	18N03P24J17E	18N03P24J22A
18N03P24J07B	18N03P24J09Y	18N03P24J12V	18N03P24J17F	18N03P24J22B
18N03P24J07C	18N03P24J09Z	18N03P24J12W	18N03P24J17G	18N03P24J22C
18N03P24J07D	18N03P24J10A	18N03P24J12X	18N03P24J17H	18N03P24J22D
18N03P24J07E	18N03P24J10B	18N03P24J12Y	18N03P24J17I	18N03P24J22E
18N03P24J07F	18N03P24J10C	18N03P24J12Z	18N03P24J17J	18N03P24J22F
18N03P24J07G	18N03P24J10D	18N03P24J13A	18N03P24J17K	18N03P24J22G
18N03P24J07H	18N03P24J10E	18N03P24J13B	18N03P24J17L	18N03P24J22H
18N03P24J07I	18N03P24J10F	18N03P24J13C	18N03P24J17M	18N03P24J22I
18N03P24J07J	18N03P24J10G	18N03P24J13D	18N03P24J17N	18N03P24J22J
18N03P24J07K	18N03P24J10H	18N03P24J13E	18N03P24J17P	18N03P24J22K
18N03P24J07L	18N03P24J10I	18N03P24J13F	18N03P24J17Q	18N03P24J22L
18N03P24J07M	18N03P24J10J	18N03P24J13G	18N03P24J17R	18N03P24J22M
18N03P24J07N	18N03P24J10K	18N03P24J13H	18N03P24J17S	18N03P24J22N
18N03P24J07P	18N03P24J10L	18N03P24J13I	18N03P24J17T	18N03P24J22Q
18N03P24J07Q	18N03P24J10M	18N03P24J13J	18N03P24J17U	18N03P24J22R
18N03P24J07R	18N03P24J10N	18N03P24J13K	18N03P24J17V	18N03P24J22S
18N03P24J07S	18N03P24J10P	18N03P24J13L	18N03P24J17W	18N03P24J22V
18N03P24J07T	18N03P24J10Q	18N03P24J13M	18N03P24J17X	18N03P24J22W
18N03P24J07U	18N03P24J10R	18N03P24J13N	18N03P24J17Y	18N03P24J22A
18N03P24J07V	18N03P24J10S	18N03P24J13P	18N03P24J17Z	18N03P24J23B
18N03P24J07W	18N03P24J10T	18N03P24J13Q	18N03P24J18A	18N03P24J23F
18N03P24J07X	18N03P24J10U	18N03P24J13R	18N03P24J18B	18N03P24K01P
18N03P24J07Y	18N03P24J10V	18N03P24J13S	18N03P24J18C	18N03P24K01R
18N03P24J07Z	18N03P24J10W	18N03P24J13T	18N03P24J18D	18N03P24K01S
18N03P24J08A	18N03P24J10X	18N03P24J13V	18N03P24J18E	18N03P24K01T
18N03P24J08B	18N03P24J10Y	18N03P24J13W	18N03P24J18F	18N03P24K01U
18N03P24J08C	18N03P24J10Z	18N03P24J13X	18N03P24J18G	18N03P24K01V
18N03P24J08D	18N03P24J11A	18N03P24J13Y	18N03P24J18H	18N03P24K01W
18N03P24J08E	18N03P24J11B	18N03P24J13Z	18N03P24J18I	18N03P24K01X
18N03P24J08F	18N03P24J11C	18N03P24J14A	18N03P24J18J	18N03P24K01Y
18N03P24J08G	18N03P24J11D	18N03P24J14B	18N03P24J18K	18N03P24K01Z

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OTROSÍ NO. 11 AL CONTRATO No. 070-89, SUSCRITO ENTRE LA AGENCIA NACIONAL DE MINERÍA Y ACERÍAS PAZ DEL RÍO

Celda	Celda	Celda	Celda	Celda
18N03P24K02K	18N03P24K06L	18N03P24M05E	18N03P24M05T	18N03P24N01C
18N03P24K02Q	18N03P24K06M	18N03P24M05F	18N03P24M05U	18N03P24N01D
18N03P24K02V	18N03P24K06N	18N03P24M05G	18N03P24M05V	18N03P24N01E
18N03P24K06A	18N03P24K06Q	18N03P24M05H	18N03P24M05W	18N03P24N01F
18N03P24K06B	18N03P24K06R	18N03P24M05I	18N03P24M05X	18N03P24N01G
18N03P24K06C	18N03P24K06S	18N03P24M05J	18N03P24M05Y	18N03P24N01H
18N03P24K06D	18N03P24M04D	18N03P24M05K	18N03P24M05Z	18N03P24N01I
18N03P24K06E	18N03P24M04E	18N03P24M05L	18N03P24M10B	18N03P24N01K
18N03P24K06F	18N03P24M04J	18N03P24M05M	18N03P24M10C	18N03P24N01L
18N03P24K06G	18N03P24M04P	18N03P24M05N	18N03P24M10D	18N03P24N01M
18N03P24K06H	18N03P24M05A	18N03P24M05P	18N03P24M10G	18N03P24N01N
18N03P24K06I	18N03P24M05B	18N03P24M05Q	18N03P24M10H	18N03P24N01Q
18N03P24K06J	18N03P24M05C	18N03P24M05R	18N03P24N01A	
18N03P24K06K	18N03P24M05D	18N03P24M05S	18N03P24N01B	

- **Polígono 4:** El Polígono 4, tiene 218,4788 hectáreas, demarcadas dentro de 64 vértices y 185 celdas asociadas, definido como proyecto Sagra. Las coordenadas descritas en la siguiente tabla corresponden a los vértices del Polígono 4 en el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss- Kruger (Transversa de Mercator), Magna Colombia Bogotá.

Vértices de delimitación del polígono 4

Vértice	Latitud	Longitud	Vértice	Latitud	Longitud	Vértice	Latitud	Longitud
1	6,01700	-72,68000	23	6,00300	-72,67600	45	6,00300	-72,68900
2	6,01600	-72,68000	24	6,00200	-72,67600	46	6,00300	-72,68900
3	6,01600	-72,67900	25	6,00200	-72,67700	47	6,00300	-72,69000
4	6,01500	-72,67900	26	6,00200	-72,67800	48	6,00400	-72,69000
5	6,01400	-72,67900	27	6,00100	-72,67800	49	6,00400	-72,69100
6	6,01400	-72,67800	28	6,00100	-72,67900	50	6,00500	-72,69100
7	6,01300	-72,67800	29	6,00000	-72,67900	51	6,00500	-72,69127
8	6,01200	-72,67800	30	6,00000	-72,68000	52	6,00962	-72,68515
9	6,01100	-72,67800	31	6,00000	-72,68100	53	6,01205	-72,68700
10	6,01100	-72,67700	32	5,99900	-72,68100	54	6,01300	-72,68700
11	6,01000	-72,67700	33	5,99900	-72,68200	55	6,01300	-72,68600
12	6,00900	-72,67700	34	5,99800	-72,68200	56	6,01400	-72,68600
13	6,00900	-72,67600	35	5,99800	-72,68300	57	6,01400	-72,68500
14	6,00800	-72,67600	36	5,99800	-72,68400	58	6,01500	-72,68500
15	6,00700	-72,67600	37	5,99800	-72,68500	59	6,01500	-72,68400
16	6,00700	-72,67500	38	5,99900	-72,68500	60	6,01500	-72,68300
17	6,00600	-72,67500	39	5,99900	-72,68600	61	6,01600	-72,68300
18	6,00500	-72,67500	40	6,00000	-72,68600	62	6,01600	-72,68200
19	6,00500	-72,67400	41	6,00000	-72,68700	63	6,01700	-72,68200
20	6,00400	-72,67400	42	6,00100	-72,68700	64	6,01700	-72,68100
21	6,00400	-72,67500	43	6,00100	-72,68800			
22	6,00300	-72,67500	44	6,00200	-72,68800			

Listado de celdas asociadas al polígono 4, comprende un total de 185 celdas.

Celda	Celda	Celda	Celda	Celda
18N03P24M09T	18N03P24M14C	18N03P24M14S	18N03P24M15V	18N03P24M18S
18N03P24M09U	18N03P24M14D	18N03P24M14T	18N03P24M15W	18N03P24M18T
18N03P24M09X	18N03P24M14E	18N03P24M14U	18N03P24M15X	18N03P24M18U
18N03P24M09Y	18N03P24M14F	18N03P24M14V	18N03P24M17Y	18N03P24M18V
18N03P24M09Z	18N03P24M14G	18N03P24M14W	18N03P24M17Z	18N03P24M18W
18N03P24M10V	18N03P24M14H	18N03P24M14X	18N03P24M18E	18N03P24M18X
18N03P24M13J	18N03P24M14I	18N03P24M14Y	18N03P24M18H	18N03P24M18Y
18N03P24M13N	18N03P24M14J	18N03P24M14Z	18N03P24M18I	18N03P24M18Z
18N03P24M13P	18N03P24M14K	18N03P24M15A	18N03P24M18J	18N03P24M19A
18N03P24M13T	18N03P24M14L	18N03P24M15F	18N03P24M18L	18N03P24M19B
18N03P24M13U	18N03P24M14M	18N03P24M15G	18N03P24M18M	18N03P24M19C
18N03P24M13Y	18N03P24M14N	18N03P24M15K	18N03P24M18N	18N03P24M19D
18N03P24M13Z	18N03P24M14P	18N03P24M15L	18N03P24M18P	18N03P24M19E
18N03P24M14A	18N03P24M14Q	18N03P24M15Q	18N03P24M18Q	18N03P24M19F
18N03P24M14B	18N03P24M14R	18N03P24M15R	18N03P24M18R	18N03P24M19G



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Celda	Celda	Celda	Celda	Celda
18N03P24M19H	18N03P24M20G	18N03P24M23E	18N03P24M24H	18N03P24M25E
18N03P24M19I	18N03P24M20H	18N03P24M23F	18N03P24M24I	18N03P24M25F
18N03P24M19J	18N03P24M20I	18N03P24M23G	18N03P24M24J	18N03P24M25G
18N03P24M19K	18N03P24M20K	18N03P24M23H	18N03P24M24K	18N03P24M25H
18N03P24M19L	18N03P24M20L	18N03P24M23I	18N03P24M24L	18N03P24M25I
18N03P24M19M	18N03P24M20M	18N03P24M23J	18N03P24M24M	18N03P24M25J
18N03P24M19N	18N03P24M20N	18N03P24M23L	18N03P24M24N	18N03P24M25K
18N03P24M19P	18N03P24M20Q	18N03P24M23M	18N03P24M24P	18N03P24M25L
18N03P24M19Q	18N03P24M20R	18N03P24M23N	18N03P24M24Q	18N03P24M25M
18N03P24M19R	18N03P24M20S	18N03P24M23P	18N03P24M24R	18N03P24M25N
18N03P24M19S	18N03P24M20T	18N03P24M23S	18N03P24M24S	18N03P24M25Q
18N03P24M19T	18N03P24M20U	18N03P24M23T	18N03P24M24T	18N03P24M25R
18N03P24M19U	18N03P24M20V	18N03P24M23U	18N03P24M24U	18N03P24M25V
18N03P24M19V	18N03P24M20W	18N03P24M23Y	18N03P24M24V	18N03P24M25A
18N03P24M19W	18N03P24M20X	18N03P24M23Z	18N03P24M24W	18N06C04A03E
18N03P24M19X	18N03P24M20Y	18N03P24M24A	18N03P24M24X	18N06C04A04A
18N03P24M19Y	18N03P24M20Z	18N03P24M24B	18N03P24M24Y	18N06C04A04B
18N03P24M19Z	18N03P24M22E	18N03P24M24C	18N03P24M24Z	18N06C04A04C
18N03P24M20A	18N03P24M23A	18N03P24M24D	18N03P24M25A	18N06C04A04D
18N03P24M20B	18N03P24M23B	18N03P24M24E	18N03P24M25B	18N06C04A04F
18N03P24M20C	18N03P24M23C	18N03P24M24F	18N03P24M25C	18N06C04A04G
18N03P24M20F	18N03P24M23D	18N03P24M24G	18N03P24M25D	18N06C04A04H

- **Polígono 5:** El Polígono 5, tiene 670,7319 hectáreas, demarcadas dentro de 63 vértices y 575 celdas asociadas, definido como proyecto La Chapa 2. Las coordenadas descritas en la siguiente tabla corresponden a los vértices del Polígono 5 en el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss- Kruger (Transversa de Mercator), Magna Colombia Bogotá.

Vértices de delimitación del polígono 5

Vértice	Latitud	Longitud	Vértice	Latitud	Longitud	Vértice	Latitud	Longitud
1	5,95800	-72,74300	22	5,95100	-72,75500	43	5,97500	-72,75500
2	5,95700	-72,74300	23	5,95100	-72,75600	44	5,97500	-72,75400
3	5,95700	-72,74200	24	5,95100	-72,75700	45	5,97500	-72,75300
4	5,95600	-72,74200	25	5,95100	-72,75800	46	5,97500	-72,75200
5	5,95500	-72,74200	26	5,95100	-72,75900	47	5,97500	-72,75100
6	5,95400	-72,74200	27	5,95100	-72,76000	48	5,97500	-72,75000
7	5,95300	-72,74200	28	5,95100	-72,76100	49	5,97500	-72,74900
8	5,95200	-72,74200	29	5,95100	-72,76200	50	5,97500	-72,74800
9	5,95100	-72,74200	30	5,95100	-72,76300	51	5,97500	-72,74700
10	5,95100	-72,74300	31	5,95100	-72,76400	52	5,97500	-72,74600
11	5,95100	-72,74400	32	5,95100	-72,76500	53	5,97500	-72,74500
12	5,95100	-72,74500	33	5,95100	-72,76600	54	5,97500	-72,74400
13	5,95100	-72,74600	34	5,95100	-72,76700	55	5,97500	-72,74300
14	5,95100	-72,74700	35	5,95100	-72,76800	56	5,97500	-72,74200
15	5,95100	-72,74800	36	5,95100	-72,76823	57	5,97500	-72,74100
16	5,95100	-72,74900	37	5,97500	-72,76027	58	5,97500	-72,74088
17	5,95100	-72,75000	38	5,97500	-72,76000	59	5,96000	-72,74092
18	5,95100	-72,75100	39	5,97500	-72,75900	60	5,96000	-72,74100
19	5,95100	-72,75200	40	5,97500	-72,75800	61	5,96000	-72,74200
20	5,95100	-72,75300	41	5,97500	-72,75700	62	5,96000	-72,74300
21	5,95100	-72,75400	42	5,97500	-72,75600	63	5,95900	-72,74300

Listado de celdas asociadas al polígono 5, comprende un total de 575 celdas.

Celda	Celda	Celda	Celda	Celda
18N06C03F03E	18N06C03F03T	18N06C03F04A	18N06C03F04E	18N06C03F04I
18N06C03F03J	18N06C03F03U	18N06C03F04B	18N06C03F04F	18N06C03F04J
18N06C03F03N	18N06C03F03Y	18N06C03F04C	18N06C03F04G	18N06C03F04K
18N06C03F03P	18N06C03F03Z	18N06C03F04D	18N06C03F04H	18N06C03F04L





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Celda	Celda	Celda	Celda	Celda
18N06C03G01Z	18N06C03G06N	18N06C03G11C	18N06C03G12R	18N06C03G17L
18N06C03G02A	18N06C03G06P	18N06C03G11D	18N06C03G12S	18N06C03G17Q
18N06C03G02B	18N06C03G06Q	18N06C03G11E	18N06C03G12T	18N06C03G17R
18N06C03G02C	18N06C03G06R	18N06C03G11F	18N06C03G12U	18N06C03G17S
18N06C03G02D	18N06C03G06S	18N06C03G11G	18N06C03G12V	18N06C03G17V
18N06C03G02E	18N06C03G06T	18N06C03G11H	18N06C03G12W	18N06C03G17W
18N06C03G02F	18N06C03G06U	18N06C03G11I	18N06C03G12X	18N06C03G17X
18N06C03G02G	18N06C03G06V	18N06C03G11J	18N06C03G12Y	18N06C03G21A
18N06C03G02H	18N06C03G06W	18N06C03G11K	18N06C03G12Z	18N06C03G21B
18N06C03G02I	18N06C03G06X	18N06C03G11L	18N06C03G16A	18N06C03G21C
18N06C03G02J	18N06C03G06Y	18N06C03G11M	18N06C03G16B	18N06C03G21D
18N06C03G02K	18N06C03G06Z	18N06C03G11N	18N06C03G16C	18N06C03G21E
18N06C03G02L	18N06C03G07A	18N06C03G11P	18N06C03G16D	18N06C03G21F
18N06C03G02M	18N06C03G07B	18N06C03G11Q	18N06C03G16E	18N06C03G21G
18N06C03G02N	18N06C03G07C	18N06C03G11R	18N06C03G16F	18N06C03G21H
18N06C03G02P	18N06C03G07D	18N06C03G11S	18N06C03G16G	18N06C03G21I
18N06C03G02Q	18N06C03G07E	18N06C03G11T	18N06C03G16H	18N06C03G21J
18N06C03G02R	18N06C03G07F	18N06C03G11U	18N06C03G16I	18N06C03G21K
18N06C03G02S	18N06C03G07G	18N06C03G11V	18N06C03G16J	18N06C03G21L
18N06C03G02T	18N06C03G07H	18N06C03G11W	18N06C03G16K	18N06C03G21M
18N06C03G02U	18N06C03G07I	18N06C03G11X	18N06C03G16L	18N06C03G21N
18N06C03G02V	18N06C03G07J	18N06C03G11Y	18N06C03G16M	18N06C03G21P
18N06C03G02W	18N06C03G07K	18N06C03G11Z	18N06C03G16N	18N06C03G21Q
18N06C03G02X	18N06C03G07L	18N06C03G12A	18N06C03G16P	18N06C03G21R
18N06C03G02Y	18N06C03G07M	18N06C03G12B	18N06C03G16Q	18N06C03G21S
18N06C03G02Z	18N06C03G07N	18N06C03G12C	18N06C03G16R	18N06C03G21T
18N06C03G06A	18N06C03G07P	18N06C03G12D	18N06C03G16S	18N06C03G21U
18N06C03G06B	18N06C03G07Q	18N06C03G12E	18N06C03G16T	18N06C03G22A
18N06C03G06C	18N06C03G07R	18N06C03G12F	18N06C03G16U	18N06C03G22B
18N06C03G06D	18N06C03G07S	18N06C03G12G	18N06C03G16V	18N06C03G22C
18N06C03G06E	18N06C03G07T	18N06C03G12H	18N06C03G16W	18N06C03G22F
18N06C03G06F	18N06C03G07U	18N06C03G12I	18N06C03G16X	18N06C03G22G
18N06C03G06G	18N06C03G07V	18N06C03G12J	18N06C03G16Y	18N06C03G22H
18N06C03G06H	18N06C03G07W	18N06C03G12K	18N06C03G16Z	18N06C03G22K
18N06C03G06I	18N06C03G07X	18N06C03G12L	18N06C03G17A	18N06C03G22L
18N06C03G06J	18N06C03G07Y	18N06C03G12M	18N06C03G17B	18N06C03G22M
18N06C03G06K	18N06C03G07Z	18N06C03G12N	18N06C03G17F	18N06C03G22Q
18N06C03G06L	18N06C03G11A	18N06C03G12P	18N06C03G17G	18N06C03G22R
18N06C03G06M	18N06C03G11B	18N06C03G12Q	18N06C03G17K	18N06C03G22S

- **Polígono 6:** El Polígono 6, tiene 665,7117 hectáreas, demarcadas dentro de 137 vértices y 593 celdas asociadas, definido como proyecto Samacá. Las coordenadas descritas en la siguiente tabla corresponden a los vértices del Polígono 6 en el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss- Kruger (Transversa de Mercator), Magna Colombia Bogotá.

Vértices de delimitación del polígono 6

Vértice	Latitud	Longitud
1	5,48500	-73,50900
2	5,48400	-73,50900
3	5,48400	-73,50800
4	5,48300	-73,50800
5	5,48200	-73,50800
6	5,48200	-73,50700
7	5,48100	-73,50700
8	5,48000	-73,50700
9	5,48000	-73,50600
10	5,47900	-73,50600
11	5,47900	-73,50500
12	5,47800	-73,50500
13	5,47700	-73,50500
14	5,47700	-73,50400
15	5,47600	-73,50400
16	5,47500	-73,50400

Vértice	Latitud	Longitud
17	5,47500	-73,50300
18	5,47400	-73,50300
19	5,47300	-73,50300
20	5,47200	-73,50300
21	5,47200	-73,50400
22	5,47100	-73,50400
23	5,47000	-73,50400
24	5,47000	-73,50500
25	5,46900	-73,50500
26	5,46800	-73,50500
27	5,46800	-73,50600
28	5,46700	-73,50600
29	5,46600	-73,50600
30	5,46600	-73,50700
31	5,46500	-73,50700
32	5,46400	-73,50700

Vértice	Latitud	Longitud
33	5,46300	-73,50700
34	5,46300	-73,50800
35	5,46200	-73,50800
36	5,46100	-73,50800
37	5,46100	-73,50900
38	5,46000	-73,50900
39	5,45900	-73,50900
40	5,45800	-73,51000
41	5,45800	-73,51000
42	5,45700	-73,51000
43	5,45700	-73,51100
44	5,45600	-73,51100
45	5,45500	-73,51100
46	5,45400	-73,51100
47	5,45400	-73,51200
48	5,45300	-73,51200



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Vértice	Latitud	Longitud
49	5,45200	-73,51200
50	5,45200	-73,51300
51	5,45100	-73,51300
52	5,45000	-73,51300
53	5,45000	-73,51400
54	5,44900	-73,51400
55	5,44800	-73,51400
56	5,44800	-73,51500
57	5,44800	-73,51600
58	5,44800	-73,51700
59	5,44800	-73,51749
60	5,44857	-73,51724
61	5,45114	-73,52300
62	5,45200	-73,52300
63	5,45300	-73,52300
64	5,45400	-73,52300
65	5,45500	-73,52300
66	5,45600	-73,52300
67	5,45700	-73,52300
68	5,45800	-73,52300
69	5,45800	-73,52400
70	5,45800	-73,52500
71	5,45800	-73,52600
72	5,45700	-73,52600
73	5,45600	-73,52600
74	5,45500	-73,52600
75	5,45500	-73,52700
76	5,45400	-73,52700
77	5,45400	-73,52800
78	5,45500	-73,52800

Vértice	Latitud	Longitud
79	5,45600	-73,52800
80	5,45700	-73,52800
81	5,45700	-73,52900
82	5,45700	-73,53000
83	5,45700	-73,53100
84	5,45800	-73,53100
85	5,45900	-73,53100
86	5,45900	-73,53200
87	5,45900	-73,53300
88	5,45800	-73,53300
89	5,45800	-73,53400
90	5,45700	-73,53400
91	5,45700	-73,53500
92	5,45700	-73,53600
93	5,45700	-73,53700
94	5,45800	-73,53700
95	5,45800	-73,53800
96	5,45900	-73,53800
97	5,45900	-73,53900
98	5,46000	-73,53900
99	5,46000	-73,54000
100	5,46100	-73,54000
101	5,46200	-73,54000
102	5,46200	-73,54100
103	5,46237	-73,54100
104	5,46328	-73,53357
105	5,46707	-73,52700
106	5,46893	-73,52378
107	5,46942	-73,52408
108	5,47009	-73,52446

Vértice	Latitud	Longitud
109	5,47012	-73,52447
110	5,47251	-73,52585
111	5,47441	-73,52694
112	5,47517	-73,52550
113	5,47648	-73,52302
114	5,47649	-73,52301
115	5,47650	-73,52299
116	5,47800	-73,52385
117	5,47800	-73,52300
118	5,47800	-73,52200
119	5,47800	-73,52100
120	5,47900	-73,52100
121	5,47900	-73,52000
122	5,47900	-73,51900
123	5,48000	-73,51900
124	5,48000	-73,51800
125	5,48100	-73,51800
126	5,48100	-73,51700
127	5,48100	-73,51600
128	5,48200	-73,51600
129	5,48200	-73,51500
130	5,48200	-73,51400
131	5,48300	-73,51400
132	5,48300	-73,51300
133	5,48400	-73,51300
134	5,48400	-73,51200
135	5,48400	-73,51100
136	5,48500	-73,51100
137	5,48500	-73,51000

PARÁGRAFO 2: En el interior del polígono 6 se encuentra un área de exclusión de 129,4328 hectáreas (área de delimitación existente), que se encuentra ocupada parcialmente por el título minero HFD – 082, cuyo titular es la Cooperativa Carbonera de Samacá Coopcarbón LTDA., y la cual, se encuentra delimitada por vértices en el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss- Kruger (Transversa de Mercator), Magna Colombia Bogotá, que se enuncian a continuación.

Vértices de delimitación área de exclusión del polígono 6

Vértice	Latitud	Longitud
1	5,46074	-73,51852
2	5,46045	-73,51816
3	5,46072	-73,51795
4	5,47008	-73,51065
5	5,47542	-73,51745
6	5,47084	-73,52102
7	5,46729	-73,52180
8	5,46579	-73,52497

Listado de celdas asociadas al polígono 6, comprende un total de 593 celdas.

Celda
18N06E05C25Z
18N06E05D17U
18N06E05D17X
18N06E05D17Y
18N06E05D17Z
18N06E05D18E
18N06E05D18H
18N06E05D18I
18N06E05D18J
18N06E05D18L
18N06E05D18M
18N06E05D18N

Celda
18N06E05D18P
18N06E05D18Q
18N06E05D18R
18N06E05D18S
18N06E05D18T
18N06E05D18U
18N06E05D18V
18N06E05D18W
18N06E05D18X
18N06E05D18Y
18N06E05D18Z
18N06E05D19A

Celda
18N06E05D19F
18N06E05D19G
18N06E05D19K
18N06E05D19L
18N06E05D19Q
18N06E05D19R
18N06E05D19S
18N06E05D19V
18N06E05D19W
18N06E05D19X
18N06E05D21J
18N06E05D21L

Celda
18N06E05D21M
18N06E05D21N
18N06E05D21P
18N06E05D21R
18N06E05D21S
18N06E05D21T
18N06E05D21U
18N06E05D21V
18N06E05D21W
18N06E05D21X
18N06E05D21Y
18N06E05D21Z

Celda
18N06E05D22B
18N06E05D22C
18N06E05D22D
18N06E05D22E
18N06E05D22F
18N06E05D22G
18N06E05D22H
18N06E05D22I
18N06E05D22J
18N06E05D22K
18N06E05D22L
18N06E05D22M



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Celda	Celda	Celda	Celda	Celda
18N06E05D22M	18N06E05G10M	18N06E05G15V	18N06E05H02E	18N06E05H08E
18N06E05D22P	18N06E05G10N	18N06E05G15W	18N06E05H02F	18N06E05H08H
18N06E05D22Q	18N06E05G10P	18N06E05G15X	18N06E05H02G	18N06E05H08I
18N06E05D22R	18N06E05G10R	18N06E05G15Y	18N06E05H02J	18N06E05H08J
18N06E05D22S	18N06E05G10S	18N06E05G15Z	18N06E05H02K	18N06E05H08L
18N06E05D22T	18N06E05G10T	18N06E05G18B	18N06E05H03A	18N06E05H08M
18N06E05D22U	18N06E05G10U	18N06E05G18C	18N06E05H03B	18N06E05H08N
18N06E05D22V	18N06E05G10V	18N06E05G18D	18N06E05H03C	18N06E05H08P
18N06E05D22W	18N06E05G10W	18N06E05G18E	18N06E05H03D	18N06E05H08R
18N06E05D22X	18N06E05G10X	18N06E05G18H	18N06E05H03E	18N06E05H08S
18N06E05D22Y	18N06E05G10Y	18N06E05G18I	18N06E05H03F	18N06E05H08T
18N06E05D22Z	18N06E05G10Z	18N06E05G18J	18N06E05H03G	18N06E05H08U
18N06E05D23A	18N06E05G12P	18N06E05G18N	18N06E05H03H	18N06E05H08V
18N06E05D23B	18N06E05G13J	18N06E05G18P	18N06E05H03I	18N06E05H08W
18N06E05D23C	18N06E05G13K	18N06E05G19A	18N06E05H03J	18N06E05H08X
18N06E05D23D	18N06E05G13L	18N06E05G19B	18N06E05H03K	18N06E05H08Y
18N06E05D23E	18N06E05G13M	18N06E05G19C	18N06E05H03L	18N06E05H08Z
18N06E05D23F	18N06E05G13N	18N06E05G19D	18N06E05H03M	18N06E05H09A
18N06E05D23G	18N06E05G13P	18N06E05G19E	18N06E05H03N	18N06E05H09B
18N06E05D23H	18N06E05G13Q	18N06E05G19F	18N06E05H03P	18N06E05H09C
18N06E05D23I	18N06E05G13R	18N06E05G19G	18N06E05H03R	18N06E05H09D
18N06E05D23J	18N06E05G13S	18N06E05G19J	18N06E05H03S	18N06E05H09E
18N06E05D23K	18N06E05G13T	18N06E05G19K	18N06E05H03T	18N06E05H09F
18N06E05D23L	18N06E05G13U	18N06E05G19P	18N06E05H03U	18N06E05H09G
18N06E05D23M	18N06E05G13V	18N06E05G20A	18N06E05H03Y	18N06E05H09H
18N06E05D23N	18N06E05G13W	18N06E05G20B	18N06E05H03Z	18N06E05H09I
18N06E05D23P	18N06E05G13X	18N06E05G20C	18N06E05H04A	18N06E05H09J
18N06E05D23Q	18N06E05G13Y	18N06E05G20D	18N06E05H04B	18N06E05H09K
18N06E05D23R	18N06E05G13Z	18N06E05G20E	18N06E05H04C	18N06E05H09L
18N06E05D23S	18N06E05G14C	18N06E05G20F	18N06E05H04D	18N06E05H09M
18N06E05D23T	18N06E05G14D	18N06E05G20G	18N06E05H04E	18N06E05H09N
18N06E05D23U	18N06E05G14E	18N06E05G20H	18N06E05H04F	18N06E05H09Q
18N06E05D23V	18N06E05G14F	18N06E05G20I	18N06E05H04G	18N06E05H09R
18N06E05D23W	18N06E05G14G	18N06E05G20J	18N06E05H04H	18N06E05H09S
18N06E05D23X	18N06E05G14H	18N06E05G20K	18N06E05H04I	18N06E05H09T
18N06E05D23Y	18N06E05G14I	18N06E05G20L	18N06E05H04J	18N06E05H09V
18N06E05D23Z	18N06E05G14J	18N06E05G20M	18N06E05H04K	18N06E05H09W
18N06E05D24A	18N06E05G14K	18N06E05G20N	18N06E05H04L	18N06E05H09X
18N06E05D24B	18N06E05G14L	18N06E05G20O	18N06E05H04M	18N06E05H11A
18N06E05D24C	18N06E05G14M	18N06E05G20T	18N06E05H04N	18N06E05H11B
18N06E05D24D	18N06E05G14N	18N06E05G20X	18N06E05H04P	18N06E05H11C
18N06E05D24F	18N06E05G14P	18N06E05G20Y	18N06E05H04Q	18N06E05H11F
18N06E05D24G	18N06E05G14Q	18N06E05G25C	18N06E05H04R	18N06E05H11G
18N06E05D24H	18N06E05G14R	18N06E05H01A	18N06E05H04S	18N06E05H11H
18N06E05D24I	18N06E05G14S	18N06E05H01B	18N06E05H04T	18N06E05H11I
18N06E05D24J	18N06E05G14T	18N06E05H01C	18N06E05H04U	18N06E05H11K
18N06E05D24K	18N06E05G14U	18N06E05H01D	18N06E05H04V	18N06E05H11L
18N06E05D24L	18N06E05G14V	18N06E05H01E	18N06E05H04W	18N06E05H11M
18N06E05D24M	18N06E05G14W	18N06E05H01F	18N06E05H04X	18N06E05H11N
18N06E05D24N	18N06E05G14X	18N06E05H01G	18N06E05H04Y	18N06E05H11P
18N06E05D24P	18N06E05G14Y	18N06E05H01H	18N06E05H04Z	18N06E05H11Q
18N06E05D24Q	18N06E05G14Z	18N06E05H01I	18N06E05H05A	18N06E05H11R
18N06E05D24R	18N06E05G15A	18N06E05H01J	18N06E05H05B	18N06E05H11S
18N06E05D24S	18N06E05G15B	18N06E05H01K	18N06E05H05F	18N06E05H11T
18N06E05D24T	18N06E05G15C	18N06E05H01L	18N06E05H05G	18N06E05H11U
18N06E05D24U	18N06E05G15D	18N06E05H01M	18N06E05H05K	18N06E05H11V
18N06E05D24V	18N06E05G15E	18N06E05H01N	18N06E05H05L	18N06E05H11W
18N06E05D24W	18N06E05G15F	18N06E05H01P	18N06E05H05Q	18N06E05H11X
18N06E05D24X	18N06E05G15G	18N06E05H01Q	18N06E05H05V	18N06E05H11Y
18N06E05D24Y	18N06E05G15H	18N06E05H01R	18N06E05H06A	18N06E05H11Z
18N06E05D24Z	18N06E05G15I	18N06E05H01S	18N06E05H06B	18N06E05H12E
18N06E05D25Q	18N06E05G15J	18N06E05H01T	18N06E05H06C	18N06E05H12I
18N06E05D25V	18N06E05G15K	18N06E05H01U	18N06E05H06D	18N06E05H12J
18N06E05G05O	18N06E05G15L	18N06E05H01V	18N06E05H06F	18N06E05H12N
18N06E05G05E	18N06E05G15M	18N06E05H01W	18N06E05H06G	18N06E05H12P
18N06E05G05I	18N06E05G15N	18N06E05H01X	18N06E05H06H	18N06E05H12Q
18N06E05G05J	18N06E05G15P	18N06E05H01Y	18N06E05H06K	18N06E05H12R
18N06E05G05N	18N06E05G15Q	18N06E05H01Z	18N06E05H06L	18N06E05H12S
18N06E05G05P	18N06E05G15R	18N06E05H02A	18N06E05H06Q	18N06E05H12T
18N06E05G05U	18N06E05G15S	18N06E05H02B	18N06E05H06V	18N06E05H12U
18N06E05G09Z	18N06E05G15T	18N06E05H02C	18N06E05H06W	18N06E05H12V
18N06E05G10I	18N06E05G15U	18N06E05H02D	18N06E05H08D	18N06E05H12W

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OTROSÍ NO. 11 AL CONTRATO No. 070-89, SUSCRITO ENTRE LA AGENCIA NACIONAL DE MINERÍA Y ACERÍAS PAZ DEL RÍO

Celda	Celda	Celda	Celda	Celda
18N06E05H12X	18N06E05H14L	18N06E05H17M	18N06E05H18Y	18N06E05H22T
18N06E05H12Y	18N06E05H14Q	18N06E05H17N	18N06E05H19A	18N06E05H22U
18N06E05H12Z	18N06E05H14R	18N06E05H17P	18N06E05H21C	18N06E05H22V
18N06E05H13A	18N06E05H14V	18N06E05H17Q	18N06E05H21D	18N06E05H22W
18N06E05H13B	18N06E05H14A	18N06E05H17R	18N06E05H21E	18N06E05H22X
18N06E05H13C	18N06E05H14B	18N06E05H17S	18N06E05H21H	18N06E05H22Y
18N06E05H13D	18N06E05H14C	18N06E05H17T	18N06E05H21I	18N06E05H22Z
18N06E05H13E	18N06E05H14D	18N06E05H17U	18N06E05H21J	18N06E05H23A
18N06E05H13F	18N06E05H14E	18N06E05H17V	18N06E05H21M	18N06E05H23B
18N06E05H13G	18N06E05H14F	18N06E05H17W	18N06E05H21N	18N06E05H23C
18N06E05H13H	18N06E05H14G	18N06E05H17X	18N06E05H21P	18N06E05H23D
18N06E05H13I	18N06E05H14H	18N06E05H17Y	18N06E05H21S	18N06E05H23F
18N06E05H13J	18N06E05H14I	18N06E05H17Z	18N06E05H21T	18N06E05H23G
18N06E05H13K	18N06E05H14J	18N06E05H18A	18N06E05H21U	18N06E05H23H
18N06E05H13L	18N06E05H14M	18N06E05H18B	18N06E05H21X	18N06E05H23K
18N06E05H13M	18N06E05H14N	18N06E05H18C	18N06E05H21Y	18N06E05H23L
18N06E05H13N	18N06E05H14P	18N06E05H18D	18N06E05H21Z	18N06E05H23M
18N06E05H13P	18N06E05H14S	18N06E05H18E	18N06E05H22A	18N06E05H23Q
18N06E05H13Q	18N06E05H14T	18N06E05H18F	18N06E05H22B	18N06E05H23R
18N06E05H13R	18N06E05H14U	18N06E05H18G	18N06E05H22C	18N06E05H23V
18N06E05H13S	18N06E05H14X	18N06E05H18H	18N06E05H22D	18N06E05H23W
18N06E05H13T	18N06E05H14Y	18N06E05H18I	18N06E05H22E	18N06E05L01E
18N06E05H13U	18N06E05H14Z	18N06E05H18J	18N06E05H22F	18N06E05L02A
18N06E05H13V	18N06E05H17A	18N06E05H18K	18N06E05H22G	18N06E05L02B
18N06E05H13W	18N06E05H17B	18N06E05H18L	18N06E05H22H	18N06E05L02C
18N06E05H13X	18N06E05H17C	18N06E05H18M	18N06E05H22I	18N06E05L02D
18N06E05H13Y	18N06E05H17D	18N06E05H18N	18N06E05H22J	18N06E05L02E
18N06E05H13Z	18N06E05H17E	18N06E05H18P	18N06E05H22K	18N06E05L02G
18N06E05H14A	18N06E05H17F	18N06E05H18Q	18N06E05H22L	18N06E05L02H
18N06E05H14B	18N06E05H17G	18N06E05H18R	18N06E05H22M	18N06E05L02I
18N06E05H14C	18N06E05H17H	18N06E05H18S	18N06E05H22N	18N06E05L02J
18N06E05H14F	18N06E05H17I	18N06E05H18T	18N06E05H22P	18N06E05L03A
18N06E05H14G	18N06E05H17J	18N06E05H18V	18N06E05H22Q	18N06E05L03F
18N06E05H14H	18N06E05H17K	18N06E05H18W	18N06E05H22R	
18N06E05H14K	18N06E05H17L	18N06E05H18X	18N06E05H22S	

PARÁGRAFO 3: ÁREA DE INFRAESTRUCTURA. EL CONTRATISTA adelantará en el polígono 3, en jurisdicción del municipio de Socha, la infraestructura destinada para los ocho (8) proyectos de la Zona 1; cubre un área de 3,6750 hectáreas, demarcadas dentro de 8 vértices y 3 celdas. Las coordenadas descritas en la siguiente tabla corresponden a los vértices del área de Infraestructura en el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss- Kruger (Transversa de Mercator), Magna Colombia Bogotá (a partir de la sumatoria de las áreas de las celdas completamente contenidas en el polígono, que se encuentra calculada en el atributo AREA_HA, de la capa MTA_GRID_CELDA del Sistema Integral de Gestión Minera - SIGM Anna Minería).

Vértices de delimitación del área de infraestructura

Vértice	Latitud	Longitud
1	6,02400	-72,67100
2	6,02300	-72,67100
3	6,02200	-72,67100
4	6,02200	-72,67200
5	6,02200	-72,67300
6	6,02300	-72,67300
7	6,02300	-72,67200
8	6,02400	-72,67200

Celdas comprendidas para la infraestructura.

Celda	Área (ha)
18N03P24N01I	1,2250
18N03P24N01M	1,2250



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18N03P24N01N 1,2250

PARÁGRAFO 4: El área de los proyectos mineros antes descrita, está ubicada en los municipios de Socotá, Sativanorte, Sativasur, Socha, Tasco y Samacá, en el departamento de Boyacá.

PARÁGRAFO 5: ÁREAS PARA DEVOLUCIÓN POR CONCEPTO DE FORMALIZACIÓN MINERA. EL CONTRATISTA, detalla las áreas para devolución por concepto de Formalización minera, en los que se ha evidenciado actividad minera de tipo artesanal; dieciocho (18) áreas en zona 1 (Paz de Río), que abarcan 2201 celdas para un área de 2621,5418 hectáreas y cinco (5) áreas en zona 2 (Samacá), que abarcan 353 celdas para un área de 391,8660 hectáreas; para un total de 2554 celdas y un área total de 3013,4078 hectáreas; así: (Ver anexo 2. Plano topográfico y Anexo 3. Definición de Áreas)

- **Polígono 01 - Formalización Minera "Doble A".** Se localiza en la zona 1, en el bloque geológico Jericó del título minero, bajo jurisdicción del municipio de Jericó, cubre un área de 172,3380 hectáreas, demarcadas dentro de 46 vértices y con 147 celdas asociadas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss- Kruger (Transversa de Mercator), Magna Colombia Bogotá.

Vértices de delimitación del Polígono 01 – Formalización Minera "Doble A"

Vértice	Latitud	Longitud
1	6,13200	-72,59400
2	6,13200	-72,59500
3	6,13300	-72,59500
4	6,13400	-72,59500
5	6,13500	-72,59500
6	6,13500	-72,59500
7	6,13500	-72,59400
8	6,13700	-72,59400
9	6,13800	-72,59400
10	6,13900	-72,59400
11	6,14000	-72,59400
12	6,14100	-72,59400
13	6,14100	-72,59300
14	6,14200	-72,59300
15	6,14300	-72,59300
16	6,14300	-72,59200

Vértice	Latitud	Longitud
17	6,14400	-72,59200
18	6,14435	-72,59200
19	6,14560	-72,58000
20	6,14500	-72,58000
21	6,14400	-72,58000
22	6,14300	-72,58000
23	6,14200	-72,58000
24	6,14100	-72,58000
25	6,14100	-72,58100
26	6,14000	-72,58100
27	6,14000	-72,58200
28	6,13900	-72,58200
29	6,13900	-72,58300
30	6,13800	-72,58300
31	6,13800	-72,58400
32	6,13700	-72,58400

Vértice	Latitud	Longitud
33	6,13600	-72,58400
34	6,13600	-72,58500
35	6,13500	-72,58500
36	6,13500	-72,58600
37	6,13400	-72,58600
38	6,13400	-72,58700
39	6,13300	-72,58700
40	6,13200	-72,58700
41	6,13200	-72,58800
42	6,13200	-72,58900
43	6,13200	-72,59000
44	6,13200	-72,59100
45	6,13200	-72,59200
46	6,13200	-72,59300

Listado de celdas asociadas al Polígono 01 - Formalización minera "Doble A", comprende un total de 147 celdas.

Celda
18N03P20I03Z
18N03P20I04V
18N03P20I04W
18N03P20I04X
18N03P20I04Y
18N03P20I04Z
18N03P20I07D
18N03P20I07E
18N03P20I07I
18N03P20I07J
18N03P20I07M
18N03P20I07N
18N03P20I07P
18N03P20I07S
18N03P20I07T

Celda
18N03P20I07U
18N03P20I07W
18N03P20I07X
18N03P20I07Y
18N03P20I07Z
18N03P20I08A
18N03P20I08B
18N03P20I08C
18N03P20I08D
18N03P20I08E
18N03P20I08F
18N03P20I08G
18N03P20I08H
18N03P20I08I
18N03P20I08J

Celda
18N03P20I08K
18N03P20I08L
18N03P20I08M
18N03P20I08N
18N03P20I08P
18N03P20I08Q
18N03P20I08R
18N03P20I08S
18N03P20I08T
18N03P20I08U
18N03P20I08V
18N03P20I08W
18N03P20I08X
18N03P20I08Y
18N03P20I08Z

Celda
18N03P20I09A
18N03P20I09B
18N03P20I09C
18N03P20I09D
18N03P20I09E
18N03P20I09F
18N03P20I09G
18N03P20I09H
18N03P20I09I
18N03P20I09J
18N03P20I09K
18N03P20I09L
18N03P20I09M
18N03P20I09N
18N03P20I09P

Celda
18N03P20I09Q
18N03P20I09R
18N03P20I09S
18N03P20I09T
18N03P20I09U
18N03P20I09V
18N03P20I09W
18N03P20I09X
18N03P20I09Y
18N03P20I12B
18N03P20I12C
18N03P20I12D
18N03P20I12E
18N03P20I12G
18N03P20I12H



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Celda
18N03P20112I
18N03P20112J
18N03P20112L
18N03P20112M
18N03P20112N
18N03P20112P
18N03P20112R
18N03P20112S
18N03P20112T
18N03P20112U
18N03P20112V
18N03P20112W
18N03P20112X
18N03P20112Y
18N03P20112Z

Celda
18N03P20113A
18N03P20113B
18N03P20113C
18N03P20113D
18N03P20113E
18N03P20113F
18N03P20113G
18N03P20113H
18N03P20113I
18N03P20113J
18N03P20113K
18N03P20113L
18N03P20113M
18N03P20113N
18N03P20113P

Celda
18N03P20113Q
18N03P20113R
18N03P20113S
18N03P20113T
18N03P20113U
18N03P20113V
18N03P20113W
18N03P20113X
18N03P20113Y
18N03P20113Z
18N03P20114A
18N03P20114B
18N03P20114C
18N03P20114F
18N03P20114G

Celda
18N03P20114K
18N03P20114Q
18N03P20117A
18N03P20117B
18N03P20117C
18N03P20117D
18N03P20117E
18N03P20117F
18N03P20117G
18N03P20117H
18N03P20117I
18N03P20117J
18N03P20117K
18N03P20117L
18N03P20117M

Celda
18N03P20117N
18N03P20117P
18N03P20118A
18N03P20118B
18N03P20118C
18N03P20118D
18N03P20118F
18N03P20118G
18N03P20118H
18N03P20118K
18N03P20118L
18N03P20118M

- **Polígono 02 - Formalización Minera "Edgar Castro".** Se localiza en la zona 1, en el bloque Jericó del título minero, bajo jurisdicción del municipio de Jericó, cubre un área de 29,3976 hectáreas, demarcadas dentro de 20 vértices y 24 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss- Kruger (Transversa de Mercator), Magna Colombia Bogotá (a partir de la sumatoria de las áreas de las celdas completamente contenidas en el polígono, que se encuentra calculada en el atributo AREA_HA, de la capa MTA_GRID_CELDA del Sistema Integral de Gestión Minera - SIGM Anna Minería).

Vértices de delimitación del Polígono 02 – Formalización Minera "Edgar Castro".

Vértice	Latitud	Longitud
1	6,12800	-72,59100
2	6,12800	-72,59200
3	6,12900	-72,59200
4	6,13000	-72,59200
5	6,13100	-72,59200
6	6,13200	-72,59200
7	6,13200	-72,59100

Vértice	Latitud	Longitud
8	6,13200	-72,59000
9	6,13200	-72,58900
10	6,13200	-72,58800
11	6,13200	-72,58700
12	6,13200	-72,58600
13	6,13100	-72,58600
14	6,13000	-72,58600

Vértice	Latitud	Longitud
15	6,12900	-72,58600
16	6,12800	-72,58600
17	6,12800	-72,58700
18	6,12800	-72,58800
19	6,12800	-72,58900
20	6,12800	-72,59000

Listado de celdas contenidas del Polígono 02 - Formalización minera "Edgar Castro", comprende un total de 24 celdas.

Celda	Área (ha)
18N03P20117T	1,2249
18N03P20117U	1,2249
18N03P20117Y	1,2249
18N03P20117Z	1,2249
18N03P20118Q	1,2249
18N03P20118R	1,2249
18N03P20118S	1,2249
18N03P20118T	1,2249
18N03P20118V	1,2249

Celda	Área (ha)
18N03P20118W	1,2249
18N03P20118X	1,2249
18N03P20118Y	1,2249
18N03P20122D	1,2249
18N03P20122E	1,2249
18N03P20122I	1,2249
18N03P20122J	1,2249
18N03P20123A	1,2249
18N03P20123B	1,2249

Celda	Área (ha)
18N03P20123C	1,2249
18N03P20123D	1,2249
18N03P20123F	1,2249
18N03P20123G	1,2249
18N03P20123H	1,2249
18N03P20123I	1,2249

- **Polígono 03 – Formalización Minera "Malpicas".** Se localiza en la zona 1, en el bloque Jericó del título minero, jurisdicción del municipio de Jericó, cubre un área de 29,3976 hectáreas, demarcadas dentro de 20 vértices y 24 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss- Kruger (Transversa de Mercator), Magna Colombia Bogotá (a partir de la sumatoria de las áreas de las celdas completamente contenidas en el polígono, que se encuentra calculada en el atributo AREA_HA, de la capa MTA_GRID_CELDA del Sistema Integral de Gestión Minera - SIGM Anna Minería).



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Vértices de delimitación del Polígono 03 – Formalización Minera “Malpicas”.

Vértice	Latitud	Longitud
1	6,12200	-72,59100
2	6,12200	-72,59200
3	6,12300	-72,59200
4	6,12400	-72,59200
5	6,12500	-72,59200
6	6,12600	-72,59200
7	6,12700	-72,59200

Vértice	Latitud	Longitud
8	6,12800	-72,59200
9	6,12800	-72,59100
10	6,12800	-72,59000
11	6,12800	-72,58900
12	6,12800	-72,58800
13	6,12700	-72,58800
14	6,12600	-72,58800

Vértice	Latitud	Longitud
15	6,12500	-72,58800
16	6,12400	-72,58800
17	6,12300	-72,58800
18	6,12200	-72,58800
19	6,12200	-72,58900
20	6,12200	-72,59000

Listado de celdas contenidas del Polígono 03 - Formalización minera “Malpicas”, comprende un total de 24 celdas.

Celda	Área (ha)
18N03P20I22M	1,2249
18N03P20I22P	1,2249
18N03P20I22T	1,2249
18N03P20I22U	1,2249
18N03P20I22Y	1,2249
18N03P20I22Z	1,2249
18N03P20I23K	1,2249
18N03P20I23L	1,2249
18N03P20I23Q	1,2249

Celda	Área (ha)
18N03P20I23R	1,2249
18N03P20I23V	1,2249
18N03P20I23W	1,2249
18N03P20M02D	1,2249
18N03P20M02E	1,2249
18N03P20M02I	1,2249
18N03P20M02J	1,2249
18N03P20M02N	1,2249
18N03P20M02P	1,2249

Celda	Área (ha)
18N03P20M03A	1,2249
18N03P20M03B	1,2249
18N03P20M03F	1,2249
18N03P20M03G	1,2249
18N03P20M03K	1,2249
18N03P20M03L	1,2249

- **Polígono 04 – Formalización Minera “Limoncitos”.** Se localiza en la zona 1, en el bloque Sativanorte del título minero, bajo jurisdicción del municipio de Sativanorte, cubre un área de 111,3951 hectáreas, demarcadas dentro de 52 vértices y 94 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss- Kruger (Transversa de Mercator), Magna Colombia Bogotá.

Vértices de delimitación del Polígono 04 – Formalización Minera “Limoncitos”.

Vértice	Latitud	Longitud
1	6,13665	-72,66600
2	6,13600	-72,66600
3	6,13600	-72,66500
4	6,13500	-72,66500
5	6,13500	-72,66400
6	6,13400	-72,66400
7	6,13400	-72,66300
8	6,13400	-72,66200
9	6,13300	-72,66200
10	6,13300	-72,66100
11	6,13300	-72,66000
12	6,13200	-72,66000
13	6,13200	-72,65900
14	6,13100	-72,65900
15	6,13100	-72,65800
16	6,13100	-72,65700
17	6,13000	-72,65700
18	6,12900	-72,65700

Vértice	Latitud	Longitud
19	6,12900	-72,65800
20	6,12800	-72,65800
21	6,12800	-72,65900
22	6,12700	-72,65900
23	6,12700	-72,66000
24	6,12600	-72,66000
25	6,12500	-72,66000
26	6,12500	-72,66100
27	6,12500	-72,66200
28	6,12800	-72,66200
29	6,12600	-72,66300
30	6,12600	-72,66400
31	6,12700	-72,66400
32	6,12700	-72,66500
33	6,12800	-72,66500
34	6,12800	-72,66600
35	6,12900	-72,66600
36	6,12900	-72,66700

Vértice	Latitud	Longitud
37	6,12900	-72,66800
38	6,13000	-72,66800
39	6,13000	-72,66900
40	6,13100	-72,66900
41	6,13200	-72,66900
42	6,13200	-72,67000
43	6,13200	-72,67100
44	6,13300	-72,67100
45	6,13300	-72,67200
46	6,13300	-72,67300
47	6,13400	-72,67300
48	6,13400	-72,67200
49	6,13500	-72,67200
50	6,13500	-72,67100
51	6,13600	-72,67100
52	6,13613	-72,67100

Listado de celdas asociadas al Polígono 04 - Formalización minera “Limoncitos”, comprende un total de 94 celdas.

Celda
18N03P19I11U
18N03P19I11Z
18N03P19I12Q

Celda
18N03P19I12R
18N03P19I12S
18N03P19I12T

Celda
18N03P19I12V
18N03P19I12W
18N03P19I12X

Celda
18N03P19I12Y
18N03P19I12Z
18N03P19I16D

Celda
18N03P19I16E
18N03P19I16H
18N03P19I16I



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Celda	Celda	Celda	Celda	Celda
18N03P19J16J	18N03P19J17P	18N03P19J18N	18N03P19J22C	18N03P19J23M
18N03P19J16P	18N03P19J17R	18N03P19J18P	18N03P19J22D	18N03P19J23N
18N03P19J17A	18N03P19J17S	18N03P19J18Q	18N03P19J22E	18N03P19J23P
18N03P19J17B	18N03P19J17T	18N03P19J18R	18N03P19J22J	18N03P19J23R
18N03P19J17C	18N03P19J17U	18N03P19J18S	18N03P19J23A	18N03P19J23S
18N03P19J17D	18N03P19J17W	18N03P19J18T	18N03P19J23B	18N03P19J23T
18N03P19J17E	18N03P19J17X	18N03P19J18U	18N03P19J23C	18N03P19J23U
18N03P19J17F	18N03P19J17Y	18N03P19J18V	18N03P19J23D	18N03P19J23V
18N03P19J17G	18N03P19J17Z	18N03P19J18W	18N03P19J23E	18N03P19J23Z
18N03P19J17H	18N03P19J18A	18N03P19J18X	18N03P19J23F	18N03P19J24A
18N03P19J17I	18N03P19J18F	18N03P19J18Y	18N03P19J23G	18N03P19J24B
18N03P19J17J	18N03P19J18G	18N03P19J18Z	18N03P19J23H	18N03P19J24C
18N03P19J17K	18N03P19J18H	18N03P19J19Q	18N03P19J23I	18N03P19J24F
18N03P19J17L	18N03P19J18K	18N03P19J19V	18N03P19J23J	18N03P19J24G
18N03P19J17M	18N03P19J18L	18N03P19J19W	18N03P19J23K	18N03P19J24K
18N03P19J17N	18N03P19J18M	18N03P19J19X	18N03P19J23L	

- **Polígono 05 – Formalización Minera “Guerrero Joya”.** Se localiza en la zona 1, en el bloque Sativanorte del título minero, bajo jurisdicción del municipio de Sativanorte, cubre un área de 146,1786 hectáreas, demarcadas dentro de 71 vértices y 122 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss- Kruger (Transversa de Mercator), Magna Colombia Bogotá.

Vértices de delimitación del polígono 05 – Formalización Minera “Guerrero Joya”.

Vértice	Latitud	Longitud	Vértice	Latitud	Longitud	Vértice	Latitud	Longitud
1	6,13100	-72,67600	25	6,12100	-72,68200	49	6,13000	-72,68100
2	6,13000	-72,67600	26	6,12100	-72,68300	50	6,13000	-72,68000
3	6,13000	-72,67500	27	6,12100	-72,68400	51	6,13100	-72,68000
4	6,12900	-72,67500	28	6,12100	-72,68500	52	6,13200	-72,68000
5	6,12900	-72,67400	29	6,12100	-72,68600	53	6,13200	-72,67900
6	6,12800	-72,67400	30	6,12200	-72,68600	54	6,13300	-72,67900
7	6,12700	-72,67400	31	6,12200	-72,68700	55	6,13300	-72,67800
8	6,12700	-72,67300	32	6,12200	-72,68800	56	6,13400	-72,67800
9	6,12600	-72,67300	33	6,12200	-72,68900	57	6,13400	-72,67700
10	6,12600	-72,67200	34	6,12300	-72,68900	58	6,13500	-72,67700
11	6,12500	-72,67200	35	6,12300	-72,68800	59	6,13500	-72,67600
12	6,12500	-72,67300	36	6,12300	-72,68700	60	6,13561	-72,67600
13	6,12400	-72,67300	37	6,12400	-72,68700	61	6,13613	-72,67100
14	6,12400	-72,67400	38	6,12400	-72,68600	62	6,13600	-72,67100
15	6,12300	-72,67400	39	6,12500	-72,68600	63	6,13500	-72,67100
16	6,12300	-72,67500	40	6,12500	-72,68500	64	6,13500	-72,67200
17	6,12300	-72,67600	41	6,12600	-72,68500	65	6,13400	-72,67200
18	6,12200	-72,67600	42	6,12600	-72,68400	66	6,13400	-72,67300
19	6,12200	-72,67700	43	6,12700	-72,68400	67	6,13400	-72,67400
20	6,12200	-72,67800	44	6,12700	-72,68300	68	6,13300	-72,67400
21	6,12100	-72,67800	45	6,12800	-72,68300	69	6,13300	-72,67500
22	6,12100	-72,67900	46	6,12800	-72,68200	70	6,13200	-72,67500
23	6,12100	-72,68000	47	6,12900	-72,68200	71	6,13200	-72,67600
24	6,12100	-72,68100	48	6,12900	-72,68100			

Listado de celdas asociadas al Polígono 05 - Formalización minera “Guerrero Joya”, comprende un total de 122 celdas.

Celda	Celda	Celda	Celda	Celda
18N03P19J15I	18N03P19J20L	18N03P19J20S	18N03P19J24E	18N03P19J24R
18N03P19J200	18N03P19J20M	18N03P19J20T	18N03P19J24I	18N03P19J24S
18N03P19J20E	18N03P19J20N	18N03P19J20V	18N03P19J24J	18N03P19J24T
18N03P19J20H	18N03P19J20P	18N03P19J20W	18N03P19J24M	18N03P19J24U
18N03P19J20I	18N03P19J20Q	18N03P19J20X	18N03P19J24N	18N03P19J24V
18N03P19J20J	18N03P19J20R	18N03P19J20Y	18N03P19J24P	18N03P19J24W



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Celda	Celda	Celda	Celda	Celda
18N03P19I24X	18N03P19I25R	18N03P19I21F	18N03P19M04E	18N03P19M05D
18N03P19I24Y	18N03P19I25S	18N03P19I21K	18N03P19M04F	18N03P19M05E
18N03P19I24Z	18N03P19I25T	18N03P19I21Q	18N03P19M04G	18N03P19M05F
18N03P19I25A	18N03P19I25U	18N03P19I21R	18N03P19M04H	18N03P19M05G
18N03P19I25B	18N03P19I25V	18N03P19I21V	18N03P19M04I	18N03P19M05H
18N03P19I25C	18N03P19I25W	18N03P19I21W	18N03P19M04J	18N03P19M05I
18N03P19I25D	18N03P19I25X	18N03P19I21X	18N03P19M04K	18N03P19M05J
18N03P19I25E	18N03P19I25Y	18N03P19M03E	18N03P19M04L	18N03P19M05K
18N03P19I25F	18N03P19I25Z	18N03P19M03I	18N03P19M04M	18N03P19M05L
18N03P19I25G	18N03P19I11S	18N03P19M03J	18N03P19M04N	18N03P19M05M
18N03P19I25H	18N03P19I11T	18N03P19M03L	18N03P19M04P	18N03P19M05N
18N03P19I25I	18N03P19I11V	18N03P19M03M	18N03P19M04Q	18N03P19M05O
18N03P19I25J	18N03P19I11W	18N03P19M03N	18N03P19M04R	18N03P19M05P
18N03P19I25K	18N03P19I11X	18N03P19M03P	18N03P19M04S	18N03P19M05Q
18N03P19I25L	18N03P19I11Y	18N03P19M03U	18N03P19M04T	18N03P19M05R
18N03P19I25M	18N03P19I16A	18N03P19M04A	18N03P19M04U	18N03P19M05S
18N03P19I25N	18N03P19I16B	18N03P19M04B	18N03P19M05A	18N03P19M05T
18N03P19I25P	18N03P19I16C	18N03P19M04C	18N03P19M05B	18N03P19M05U
18N03P19I25Q	18N03P19I16F	18N03P19M04D	18N03P19M05C	

- **Polígono 06 – Formalización Minera “La Maravilla”.** Se localiza en la zona 1, en el bloque Sativanorte del título minero, bajo jurisdicción del municipio de Sativanorte, cubre un área de 155,5496 hectáreas, demarcadas dentro de 64 vértices y 127 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss- Kruger (Transversa de Mercator), Magna Colombia Bogotá (a partir de la sumatoria de las áreas de las celdas completamente contenidas en el polígono, que se encuentra calculada en el atributo AREA_HA, de la capa MTA_GRID_CELDA del Sistema Integral de Gestión Minera - SIGM Anna Minería).

Vértices de delimitación del Polígono 06 – Formalización Minera “La Maravilla”.

Vértice	Latitud	Longitud	Vértice	Latitud	Longitud	Vértice	Latitud	Longitud
1	6,13400	-72,67300	23	6,12300	-72,66200	45	6,12200	-72,67300
2	6,13300	-72,67300	24	6,12300	-72,66300	46	6,12300	-72,67300
3	6,13300	-72,67200	25	6,12200	-72,66300	47	6,12300	-72,67200
4	6,13300	-72,67100	26	6,12100	-72,66300	48	6,12400	-72,67200
5	6,13200	-72,67100	27	6,12100	-72,66400	49	6,12500	-72,67200
6	6,13200	-72,67000	28	6,12000	-72,66400	50	6,12600	-72,67200
7	6,13200	-72,66900	29	6,11900	-72,66400	51	6,12600	-72,67300
8	6,13100	-72,66900	30	6,11900	-72,66500	52	6,12700	-72,67300
9	6,13000	-72,66900	31	6,11900	-72,66600	53	6,12700	-72,67400
10	6,13000	-72,66800	32	6,11900	-72,66700	54	6,12800	-72,67400
11	6,12900	-72,66800	33	6,11900	-72,66800	55	6,12900	-72,67400
12	6,12900	-72,66700	34	6,11900	-72,66900	56	6,12900	-72,67500
13	6,12900	-72,66600	35	6,11800	-72,66900	57	6,13000	-72,67500
14	6,12800	-72,66600	36	6,11800	-72,67000	58	6,13000	-72,67600
15	6,12800	-72,66500	37	6,11800	-72,67100	59	6,13100	-72,67600
16	6,12700	-72,66500	38	6,11800	-72,67200	60	6,13200	-72,67600
17	6,12700	-72,66400	39	6,11800	-72,67300	61	6,13200	-72,67500
18	6,12600	-72,66400	40	6,11900	-72,67300	62	6,13300	-72,67500
19	6,12600	-72,66300	41	6,11900	-72,67400	63	6,13300	-72,67400
20	6,12600	-72,66200	42	6,12000	-72,67400	64	6,13400	-72,67400
21	6,12500	-72,66200	43	6,12100	-72,67400			
22	6,12400	-72,66200	44	6,12200	-72,67400			

Listado de celdas contenidas del Polígono 06 - Formalización minera “La Maravilla”, comprende un total de 127 celdas.

Celda	Área (ha)
18N03P19I20U	1,2248
18N03P19I20Z	1,2248

Celda	Área (ha)
18N03P19I16G	1,2248
18N03P19I16K	1,2248

Celda	Área (ha)
18N03P19I16L	1,2248
18N03P19I16M	1,2248

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Vértice	Latitud	Longitud
28	6,11200	-72,68300
29	6,11100	-72,68300
30	6,11000	-72,68300
31	6,10900	-72,68300

Vértice	Latitud	Longitud
32	6,10900	-72,68400
33	6,10900	-72,68500
34	6,10900	-72,68600
35	6,10900	-72,68700

Vértice	Latitud	Longitud
36	6,10900	-72,68800
37	6,10900	-72,68900
38	6,10900	-72,69000

Listado de celdas contenidas del Polígono 07 - Formalización minera "Winkita", comprende un total de 90 celdas.

Celda	Área (ha)
18N03P19M07I	1,2248
18N03P19M07J	1,2248
18N03P19M07N	1,2248
18N03P19M07P	1,2248
18N03P19M07T	1,2248
18N03P19M07U	1,2248
18N03P19M07Y	1,2248
18N03P19M07Z	1,2248
18N03P19M08F	1,2248
18N03P19M08G	1,2248
18N03P19M08H	1,2248
18N03P19M08I	1,2248
18N03P19M08J	1,2248
18N03P19M08K	1,2248
18N03P19M08L	1,2248
18N03P19M08M	1,2248
18N03P19M08N	1,2248
18N03P19M08P	1,2248
18N03P19M08Q	1,2248
18N03P19M08R	1,2248
18N03P19M08S	1,2248
18N03P19M08T	1,2248
18N03P19M08U	1,2248
18N03P19M08V	1,2248
18N03P19M08W	1,2248
18N03P19M08X	1,2248
18N03P19M08Y	1,2248
18N03P19M08Z	1,2248
18N03P19M09F	1,2248
18N03P19M09G	1,2248

Celda	Área (ha)
18N03P19M09K	1,2248
18N03P19M09L	1,2248
18N03P19M09Q	1,2248
18N03P19M09R	1,2248
18N03P19M09V	1,2248
18N03P19M09W	1,2248
18N03P19M12D	1,2248
18N03P19M12E	1,2248
18N03P19M12I	1,2248
18N03P19M12J	1,2248
18N03P19M12N	1,2248
18N03P19M12P	1,2248
18N03P19M12T	1,2248
18N03P19M12U	1,2248
18N03P19M12Y	1,2248
18N03P19M12Z	1,2248
18N03P19M13A	1,2248
18N03P19M13B	1,2248
18N03P19M13C	1,2248
18N03P19M13D	1,2248
18N03P19M13E	1,2248
18N03P19M13F	1,2248
18N03P19M13G	1,2248
18N03P19M13H	1,2248
18N03P19M13I	1,2248
18N03P19M13J	1,2248
18N03P19M13K	1,2248
18N03P19M13L	1,2248
18N03P19M13M	1,2248
18N03P19M13N	1,2248

Celda	Área (ha)
18N03P19M13P	1,2248
18N03P19M13Q	1,2248
18N03P19M13R	1,2248
18N03P19M13S	1,2248
18N03P19M13T	1,2248
18N03P19M13U	1,2248
18N03P19M13V	1,2248
18N03P19M13W	1,2248
18N03P19M13X	1,2248
18N03P19M13Y	1,2248
18N03P19M13Z	1,2248
18N03P19M14A	1,2248
18N03P19M14B	1,2248
18N03P19M14F	1,2248
18N03P19M14G	1,2248
18N03P19M14K	1,2248
18N03P19M14L	1,2248
18N03P19M14Q	1,2248
18N03P19M14R	1,2248
18N03P19M14V	1,2248
18N03P19M14W	1,2248
18N03P19M17D	1,2248
18N03P19M17E	1,2248
18N03P19M18A	1,2248
18N03P19M18B	1,2248
18N03P19M18C	1,2248
18N03P19M18D	1,2248
18N03P19M18E	1,2248
18N03P19M19A	1,2248
18N03P19M19B	1,2248

- **Polígono 08 – Formalización Minera "Carbofrontera".** Se localiza en la zona 1, en el bloque Sativasur del título minero, bajo jurisdicción del municipio de Sativanorte, cubre un área de 94,3103 hectáreas, demarcadas dentro de 42 vértices y 77 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss-Kruger (Transversa de Mercator), Magna Colombia Bogotá (a partir de la sumatoria de las áreas de las celdas completamente contenidas en el polígono, que se encuentra calculada en el atributo AREA_HA, de la capa MTA_GRID_CELDA del Sistema Integral de Gestión Minera - SIGM Anna Minería).

Vértices de delimitación del polígono 08 – Formalización Minera "Carbofrontera".

Vértice	Latitud	Longitud
1	6,11400	-72,67000
2	6,11300	-72,67000
3	6,11300	-72,66900
4	6,11200	-72,66900
5	6,11100	-72,66900
6	6,11000	-72,66900
7	6,11000	-72,67000
8	6,10900	-72,67000
9	6,10800	-72,67000

Vértice	Latitud	Longitud
10	6,10700	-72,67000
11	6,10600	-72,67000
12	6,10500	-72,67000
13	6,10500	-72,66900
14	6,10400	-72,66900
15	6,10300	-72,66900
16	6,10300	-72,66800
17	6,10200	-72,66800
18	6,10200	-72,66900

Vértice	Latitud	Longitud
19	6,10200	-72,67000
20	6,10200	-72,67100
21	6,10200	-72,67200
22	6,10200	-72,67300
23	6,10200	-72,67400
24	6,10200	-72,67500
25	6,10300	-72,67500
26	6,10400	-72,67500
27	6,10400	-72,67600

OTROSÍ NO. 11 AL CONTRATO No. 070-89, SUSCRITO ENTRE LA AGENCIA NACIONAL DE MINERÍA Y ACERÍAS PAZ DEL RÍO

Vértice	Latitud	Longitud
28	6,10500	-72,67600
29	6,10600	-72,67600
30	6,10700	-72,67600
31	6,10800	-72,67600
32	6,10900	-72,67600

Vértice	Latitud	Longitud
33	6,11000	-72,67600
34	6,11100	-72,67600
35	6,11200	-72,67600
36	6,11300	-72,67600
37	6,11400	-72,67600

Vértice	Latitud	Longitud
38	6,11400	-72,67500
39	6,11400	-72,67400
40	6,11400	-72,67300
41	6,11400	-72,67200
42	6,11400	-72,67100

Listado de celdas contenidas del Polígono 08 - Formalización minera "Carbofrontera", comprende un total de 77 celdas.

Celda	Área (ha)
18N03P19M15J	1,2248
18N03P19M15P	1,2248
18N03P19M15U	1,2248
18N03P19M15Z	1,2248
18N03P19M20E	1,2248
18N03P19M20I	1,2248
18N03P19M20P	1,2248
18N03P19M20U	1,2248
18N03P19M20Z	1,2248
18N03P19M25E	1,2248
18N03P19M11F	1,2248
18N03P19M11G	1,2248
18N03P19M11H	1,2248
18N03P19M11I	1,2248
18N03P19M11J	1,2248
18N03P19M11K	1,2248
18N03P19M11L	1,2248
18N03P19M11M	1,2248
18N03P19M11N	1,2248
18N03P19M11P	1,2248
18N03P19M11Q	1,2248
18N03P19M11R	1,2248
18N03P19M11S	1,2248
18N03P19M11T	1,2248
18N03P19M11U	1,2248
18N03P19M11V	1,2248

Celda	Área (ha)
18N03P19N11W	1,2248
18N03P19N11X	1,2248
18N03P19N11Y	1,2248
18N03P19N11Z	1,2248
18N03P19N12Q	1,2248
18N03P19N12R	1,2248
18N03P19N12S	1,2248
18N03P19N12T	1,2248
18N03P19N12U	1,2248
18N03P19N12V	1,2248
18N03P19N12W	1,2248
18N03P19N12X	1,2248
18N03P19N12Y	1,2248
18N03P19N12Z	1,2248
18N03P19N13Q	1,2248
18N03P19N13R	1,2248
18N03P19N13S	1,2248
18N03P19N13T	1,2248
18N03P19N13U	1,2248
18N03P19N13V	1,2248
18N03P19N13W	1,2248
18N03P19N13X	1,2248
18N03P19N13Y	1,2248
18N03P19N13Z	1,2248
18N03P19N14Q	1,2248
18N03P19N14R	1,2248
18N03P19N14S	1,2248
18N03P19N14T	1,2248
18N03P19N14U	1,2248
18N03P19N14V	1,2248
18N03P19N14W	1,2248
18N03P19N14X	1,2248
18N03P19N14Y	1,2248
18N03P19N14Z	1,2248

Celda	Área (ha)
18N03P19N15U	1,2248
18N03P19N15V	1,2248
18N03P19N15W	1,2248
18N03P19N15X	1,2248
18N03P19N15Y	1,2248
18N03P19N15Z	1,2248
18N03P19N16A	1,2248
18N03P19N16B	1,2248
18N03P19N16C	1,2248
18N03P19N16D	1,2248
18N03P19N16E	1,2248
18N03P19N16F	1,2248
18N03P19N16G	1,2248
18N03P19N16H	1,2248
18N03P19N16I	1,2248
18N03P19N16J	1,2248
18N03P19N16K	1,2248
18N03P19N16L	1,2248
18N03P19N16M	1,2248
18N03P19N16N	1,2248
18N03P19N16P	1,2248
18N03P19N16Q	1,2248
18N03P19N16R	1,2248
18N03P19N16S	1,2248
18N03P19N16T	1,2248
18N03P19N16U	1,2248
18N03P19N16V	1,2248
18N03P19N16W	1,2248
18N03P19N16X	1,2248
18N03P19N16Y	1,2248
18N03P19N16Z	1,2248

- **Polígono 09 – Formalización Minera "Carboleonas".** Se localiza en la zona 1, en el bloque Sativasur del título minero, bajo jurisdicción del municipio de Sativanorte, cubre un área de 358,4994 hectáreas, demarcadas dentro de 107 vértices y 300 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss-Kruger (Transversa de Mercator), Magna Colombia Bogotá.

Vértices de delimitación del polígono 09 – Formalización Minera "Carboleonas".

Vértice	Latitud	Longitud
1	6,09300	-72,69200
2	6,09200	-72,69200
3	6,09200	-72,69100
4	6,09200	-72,69000
5	6,09200	-72,68900
6	6,09200	-72,68800
7	6,09200	-72,68700
8	6,09200	-72,68600
9	6,09200	-72,68500
10	6,09200	-72,68400
11	6,09300	-72,68400
12	6,09300	-72,68300
13	6,09300	-72,68200
14	6,09300	-72,68100
15	6,09300	-72,68000
16	6,09300	-72,67900
17	6,09200	-72,67900
18	6,09200	-72,68000

Vértice	Latitud	Longitud
19	6,09100	-72,68000
20	6,09000	-72,68000
21	6,08900	-72,68000
22	6,08800	-72,68000
23	6,08700	-72,68000
24	6,08600	-72,68000
25	6,08500	-72,68000
26	6,08400	-72,68000
27	6,08300	-72,68000
28	6,08200	-72,68000
29	6,08100	-72,68000
30	6,08000	-72,68000
31	6,07900	-72,68000
32	6,07800	-72,68000
33	6,07700	-72,68000
34	6,07600	-72,68000
35	6,07500	-72,68000
36	6,07400	-72,68000

Vértice	Latitud	Longitud
37	6,07300	-72,68000
38	6,07200	-72,68000
39	6,07100	-72,68000
40	6,07000	-72,68000
41	6,06900	-72,68000
42	6,06800	-72,68000
43	6,06700	-72,68000
44	6,06600	-72,68000
45	6,06500	-72,68000
46	6,06400	-72,68000
47	6,06300	-72,68000
48	6,06200	-72,68000
49	6,06100	-72,68000
50	6,06000	-72,68000
51	6,05900	-72,68000
52	6,05800	-72,68000
53	6,05700	-72,68000
54	6,05600	-72,68000



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Vértice	Latitud	Longitud
55	6,09300	-72,69700
56	6,09400	-72,69700
57	6,09500	-72,69700
58	6,09600	-72,69700
59	6,09600	-72,69600
60	6,09700	-72,69600
61	6,09800	-72,69600
62	6,09800	-72,69500
63	6,09900	-72,69500
64	6,10000	-72,69500
65	6,10000	-72,69400
66	6,10100	-72,69400
67	6,10200	-72,69400
68	6,10300	-72,69400
69	6,10300	-72,69300
70	6,10400	-72,69300
71	6,10500	-72,69300
72	6,10600	-72,69300

Vértice	Latitud	Longitud
73	6,10600	-72,69200
74	6,10700	-72,69200
75	6,10800	-72,69200
76	6,10900	-72,69200
77	6,10900	-72,69100
78	6,10900	-72,69000
79	6,10900	-72,68900
80	6,10900	-72,68800
81	6,10900	-72,68700
82	6,10900	-72,68600
83	6,10900	-72,68500
84	6,10900	-72,68400
85	6,10800	-72,68400
86	6,10700	-72,68400
87	6,10600	-72,68400
88	6,10500	-72,68400
89	6,10500	-72,68500
90	6,10500	-72,68600

Vértice	Latitud	Longitud
91	6,10400	-72,68600
92	6,10400	-72,68700
93	6,10400	-72,68800
94	6,10300	-72,68800
95	6,10200	-72,68800
96	6,10200	-72,68900
97	6,10200	-72,69000
98	6,10100	-72,69000
99	6,10000	-72,69000
100	6,10000	-72,69100
101	6,09900	-72,69100
102	6,09800	-72,69100
103	6,09700	-72,69100
104	6,09600	-72,69100
105	6,09600	-72,69200
106	6,09500	-72,69200
107	6,09400	-72,69200

Listado de celdas asociadas al Polígono 09 - Formalización minera "Carboleonas", comprende un total de 300 celdas.

Celda
18N03P19M17I
18N03P19M17J
18N03P19M17N
18N03P19M17P
18N03P19M17T
18N03P19M17U
18N03P19M17X
18N03P19M17Y
18N03P19M17Z
18N03P19M18F
18N03P19M18G
18N03P19M18H
18N03P19M18I
18N03P19M18J
18N03P19M18K
18N03P19M18L
18N03P19M18M
18N03P19M18N
18N03P19M18P
18N03P19M18Q
18N03P19M18R
18N03P19M18S
18N03P19M18T
18N03P19M18U
18N03P19M18V
18N03P19M18W
18N03P19M18X
18N03P19M18Y
18N03P19M18Z
18N03P19M19F
18N03P19M19K
18N03P19M19Q
18N03P19M19V
18N03P19M22C
18N03P19M22D
18N03P19M22E
18N03P19M22H
18N03P19M22I
18N03P19M22J
18N03P19M22L
18N03P19M22M
18N03P19M22N
18N03P19M22P
18N03P19M22R
18N03P19M22S
18N03P19M22T
18N03P19M22U
18N03P19M22W

Celda
18N03P19M22X
18N03P19M22Y
18N03P19M22Z
18N03P19M23A
18N03P19M23B
18N03P19M23C
18N03P19M23D
18N03P19M23F
18N03P19M23G
18N03P19M23K
18N03P19M23L
18N03P24A01P
18N03P24A01U
18N03P24A01Y
18N03P24A01Z
18N03P24A02A
18N03P24A02B
18N03P24A02C
18N03P24A02D
18N03P24A02F
18N03P24A02G
18N03P24A02H
18N03P24A02I
18N03P24A02K
18N03P24A02L
18N03P24A02M
18N03P24A02N
18N03P24A02Q
18N03P24A02R
18N03P24A02S
18N03P24A02T
18N03P24A02V
18N03P24A02W
18N03P24A02X
18N03P24A06D
18N03P24A06E
18N03P24A06I
18N03P24A06J
18N03P24A06M
18N03P24A06N
18N03P24A06P
18N03P24A06S
18N03P24A06T
18N03P24A06U
18N03P24A06X
18N03P24A06Y
18N03P24A06Z
18N03P24A07A

Celda
18N03P24A07B
18N03P24A07C
18N03P24A07F
18N03P24A07G
18N03P24A07H
18N03P24A07K
18N03P24A07L
18N03P24A07M
18N03P24A07Q
18N03P24A07R
18N03P24A07S
18N03P24A07T
18N03P24A07U
18N03P24A07V
18N03P24A07W
18N03P24A07X
18N03P24A07Y
18N03P24A07Z
18N03P24A08Q
18N03P24A08R
18N03P24A08S
18N03P24A08T
18N03P24A08U
18N03P24A08V
18N03P24A08W
18N03P24A08X
18N03P24A08Y
18N03P24A08Z
18N03P24A09L
18N03P24A09M
18N03P24A09N
18N03P24A09P
18N03P24A09Q
18N03P24A09R
18N03P24A09S
18N03P24A09T
18N03P24A09U
18N03P24A09V
18N03P24A09W
18N03P24A09X
18N03P24A09Y
18N03P24A09Z
18N03P24A10K
18N03P24A10L
18N03P24A11C
18N03P24A11D
18N03P24A11E
18N03P24A11G

Celda
18N03P24A11H
18N03P24A11I
18N03P24A11J
18N03P24A11L
18N03P24A11M
18N03P24A11N
18N03P24A11P
18N03P24A11R
18N03P24A11S
18N03P24A11T
18N03P24A11U
18N03P24A11X
18N03P24A11Y
18N03P24A11Z
18N03P24A12A
18N03P24A12B
18N03P24A12C
18N03P24A12D
18N03P24A12E
18N03P24A12F
18N03P24A12G
18N03P24A12H
18N03P24A12I
18N03P24A12J
18N03P24A12K
18N03P24A12L
18N03P24A12M
18N03P24A12N
18N03P24A12P
18N03P24A12Q
18N03P24A12R
18N03P24A12S
18N03P24A12T
18N03P24A12U
18N03P24A12V
18N03P24A12W
18N03P24A12X
18N03P24A12Y
18N03P24A12Z
18N03P24A13A
18N03P24A13B
18N03P24A13C
18N03P24A13D
18N03P24A13E
18N03P24A13F
18N03P24A13G
18N03P24A13H
18N03P24A13I

Celda
18N03P24A13J
18N03P24A13K
18N03P24A13L
18N03P24A13M
18N03P24A13N
18N03P24A13P
18N03P24A13Q
18N03P24A13R
18N03P24A13S
18N03P24A13T
18N03P24A13U
18N03P24A13V
18N03P24A13W
18N03P24A13X
18N03P24A13Y
18N03P24A13Z
18N03P24A14A
18N03P24A14B
18N03P24A14C
18N03P24A14D
18N03P24A14E
18N03P24A14F
18N03P24A14G
18N03P24A14H
18N03P24A14I
18N03P24A14K
18N03P24A14L
18N03P24A14M
18N03P24A14N
18N03P24A14Q
18N03P24A14R
18N03P24A14S
18N03P24A14T
18N03P24A14V
18N03P24A14W
18N03P24A14X
18N03P24A15D
18N03P24A15E
18N03P24A15F
18N03P24A15G
18N03P24A15H
18N03P24A15I
18N03P24A15J
18N03P24A15K
18N03P24A15L
18N03P24A15M
18N03P24A15N
18N03P24A15P
18N03P24A15Q
18N03P24A15R
18N03P24A15S
18N03P24A15T
18N03P24A15U
18N03P24A15V
18N03P24A15W
18N03P24A15X
18N03P24A15Y
18N03P24A15Z

OTROSÍ NO. 11 AL CONTRATO No. 070-89, SUSCRITO ENTRE LA AGENCIA NACIONAL DE MINERÍA Y ACERÍAS PAZ DEL RÍO

Celda	Celda	Celda	Celda	Celda
18N03P24A17G	18N03P24A17T	18N03P24A18H	18N03P24A18U	18N03P24A19K
18N03P24A17H	18N03P24A17U	18N03P24A18I	18N03P24A18V	18N03P24A19L
18N03P24A17I	18N03P24A17X	18N03P24A18J	18N03P24A18W	18N03P24A19Q
18N03P24A17J	18N03P24A17Y	18N03P24A18K	18N03P24A18X	18N03P24A19R
18N03P24A17K	18N03P24A17Z	18N03P24A18L	18N03P24A18Y	18N03P24A19V
18N03P24A17L	18N03P24A18A	18N03P24A18M	18N03P24A18Z	18N03P24A19W
18N03P24A17M	18N03P24A18B	18N03P24A18N	18N03P24A19A	18N03P24A22E
18N03P24A17N	18N03P24A18C	18N03P24A18P	18N03P24A19B	18N03P24A23A
18N03P24A17P	18N03P24A18D	18N03P24A18Q	18N03P24A19C	18N03P24A23B
18N03P24A17Q	18N03P24A18E	18N03P24A18R	18N03P24A19F	18N03P24A23C
18N03P24A17R	18N03P24A18F	18N03P24A18S	18N03P24A19G	18N03P24A23D
18N03P24A17S	18N03P24A18G	18N03P24A18T	18N03P24A19H	18N03P24A23E

- **Polígono 10 – Formalización Minera “Don Camilo”.** Se localiza en la zona 1, en el bloque Sativasur del título minero, bajo jurisdicción del municipio de Sativanorte, cubre un área de 95,5357 hectáreas, demarcadas dentro de 50 vértices y 78 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss-Kruger (Transversa de Mercator), Magna Colombia Bogotá (a partir de la sumatoria de las áreas de las celdas completamente contenidas en el polígono, que se encuentra calculada en el atributo AREA_HA, de la capa MTA_GRID_CELDA del Sistema Integral de Gestión Minera - SIGM Anna Minería).

Vértices de delimitación del polígono 10 – Formalización Minera “Don Camilo”.

Vértice	Latitud	Longitud	Vértice	Latitud	Longitud	Vértice	Latitud	Longitud
1	6,10500	-72,68100	18	6,09600	-72,68700	35	6,09900	-72,69100
2	6,10400	-72,68100	19	6,09500	-72,68700	36	6,10000	-72,69100
3	6,10400	-72,68000	20	6,09400	-72,68700	37	6,10000	-72,69000
4	6,10300	-72,68000	21	6,09300	-72,68700	38	6,10100	-72,69000
5	6,10200	-72,68000	22	6,09200	-72,68700	39	6,10200	-72,69000
6	6,10100	-72,68000	23	6,09200	-72,68800	40	6,10200	-72,68900
7	6,10100	-72,68100	24	6,09200	-72,68900	41	6,10200	-72,68800
8	6,10100	-72,68200	25	6,09200	-72,69000	42	6,10300	-72,68800
9	6,10100	-72,68300	26	6,09200	-72,69100	43	6,10400	-72,68800
10	6,10000	-72,68300	27	6,09200	-72,69200	44	6,10400	-72,68700
11	6,10000	-72,68400	28	6,09300	-72,69200	45	6,10400	-72,68600
12	6,09900	-72,68400	29	6,09400	-72,69200	46	6,10500	-72,68600
13	6,09900	-72,68500	30	6,09500	-72,69200	47	6,10500	-72,68500
14	6,09900	-72,68600	31	6,09600	-72,69200	48	6,10500	-72,68400
15	6,09800	-72,68600	32	6,09600	-72,69100	49	6,10500	-72,68300
16	6,09800	-72,68700	33	6,09700	-72,69100	50	6,10500	-72,68200
17	6,09700	-72,68700	34	6,09800	-72,69100			

Listado de celdas contenidas del Polígono 10 - Formalización minera “Don Camilo”, comprende un total de 78 celdas.

Celda	Área (ha)	Celda	Área (ha)	Celda	Área (ha)
18N03P19M23E	1,2248	18N03P19M23Z	1,2248	18N03P19M24R	1,2248
18N03P19M23H	1,2248	18N03P19M24A	1,2248	18N03P19M24S	1,2248
18N03P19M23I	1,2248	18N03P19M24B	1,2248	18N03P19M24T	1,2248
18N03P19M23J	1,2248	18N03P19M24C	1,2248	18N03P19M24U	1,2248
18N03P19M23M	1,2248	18N03P19M24D	1,2248	18N03P19M24V	1,2248
18N03P19M23N	1,2248	18N03P19M24F	1,2248	18N03P19M24W	1,2248
18N03P19M23P	1,2248	18N03P19M24G	1,2248	18N03P24A02E	1,2248
18N03P19M23Q	1,2248	18N03P19M24H	1,2248	18N03P24A02J	1,2248
18N03P19M23R	1,2248	18N03P19M24I	1,2248	18N03P24A02P	1,2248
18N03P19M23S	1,2248	18N03P19M24J	1,2248	18N03P24A02U	1,2248
18N03P19M23T	1,2248	18N03P19M24K	1,2248	18N03P24A02Y	1,2248
18N03P19M23U	1,2248	18N03P19M24L	1,2248	18N03P24A02Z	1,2248
18N03P19M23V	1,2248	18N03P19M24M	1,2248	18N03P24A03A	1,2248
18N03P19M23W	1,2248	18N03P19M24N	1,2248	18N03P24A03B	1,2248
18N03P19M23X	1,2248	18N03P19M24P	1,2248	18N03P24A03C	1,2248
18N03P19M23Y	1,2248	18N03P19M24Q	1,2248	18N03P24A03D	1,2248



OTROSÍ NO. 11 AL CONTRATO No. 070-89, SUSCRITO ENTRE LA AGENCIA NACIONAL DE MINERÍA Y ACERÍAS PAZ DEL RÍO

Celda	Área (ha)
18N03P24A03E	1,2248
18N03P24A03F	1,2248
18N03P24A03G	1,2248
18N03P24A03H	1,2248
18N03P24A03I	1,2248
18N03P24A03K	1,2248
18N03P24A03L	1,2248
18N03P24A03M	1,2248
18N03P24A03Q	1,2248
18N03P24A03R	1,2248

Celda	Área (ha)
18N03P24A03S	1,2248
18N03P24A03V	1,2248
18N03P24A03W	1,2248
18N03P24A03X	1,2248
18N03P24A04A	1,2248
18N03P24A07D	1,2248
18N03P24A07E	1,2248
18N03P24A07I	1,2249
18N03P24A07J	1,2249
18N03P24A07N	1,2249

Celda	Área (ha)
18N03P24A07P	1,2249
18N03P24A08A	1,2249
18N03P24A08B	1,2249
18N03P24A08C	1,2249
18N03P24A08F	1,2249
18N03P24A08G	1,2249
18N03P24A08H	1,2249
18N03P24A08K	1,2249
18N03P24A08L	1,2249
18N03P24A08M	1,2249

- **Polígono 11 – Formalización Minera “La Esmeralda - Leonas”.** Se localiza en la zona 1, en el bloque Sativasur del título minero, bajo jurisdicción del municipio de Sativanorte, cubre un área de 95,5398 hectáreas, demarcadas dentro de 42 vértices y 78 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss- Kruger (Transversa de Mercator), Magna Colombia Bogotá (a partir de la sumatoria de las áreas de las celdas completamente contenidas en el polígono, que se encuentra calculada en el atributo AREA_HA, de la capa MTA_GRID_CELDA del Sistema Integral de Gestión Minera - SIGM Anna Minería).

Vértices de delimitación del polígono 11 – Formalización Minera “La Esmeralda - Leonas”.

Vértice	Latitud	Longitud
1	6,10000	-72,67700
2	6,09900	-72,67700
3	6,09900	-72,67600
4	6,09800	-72,67600
5	6,09700	-72,67600
6	6,09700	-72,67700
7	6,09600	-72,67700
8	6,09500	-72,67700
9	6,09500	-72,67800
10	6,09400	-72,67800
11	6,09300	-72,67800
12	6,09300	-72,67900
13	6,09300	-72,68000
14	6,09300	-72,68100

Vértice	Latitud	Longitud
15	6,09300	-72,68200
16	6,09300	-72,68300
17	6,09300	-72,68400
18	6,09200	-72,68400
19	6,09200	-72,68500
20	6,09200	-72,68600
21	6,09200	-72,68700
22	6,09300	-72,68700
23	6,09400	-72,68700
24	6,09500	-72,68700
25	6,09600	-72,68700
26	6,09700	-72,68700
27	6,09800	-72,68700
28	6,09800	-72,68600

Vértice	Latitud	Longitud
29	6,09900	-72,68500
30	6,09900	-72,68500
31	6,09900	-72,68400
32	6,10000	-72,68400
33	6,10000	-72,68300
34	6,10100	-72,68300
35	6,10100	-72,68200
36	6,10100	-72,68100
37	6,10100	-72,68000
38	6,10200	-72,68000
39	6,10200	-72,67900
40	6,10200	-72,67800
41	6,10200	-72,67700
42	6,10100	-72,67700

Listado de celdas contenidas del Polígono 11 - Formalización minera “La Esmeralda – Leonas”, comprende un total de 78 celdas.

Celda	Área (ha)
18N03P24A04X	1,2248
18N03P24A04Y	1,2248
18N03P24A04Z	1,2248
18N03P24A05Q	1,2248
18N03P24A05R	1,2248
18N03P24A05S	1,2248
18N03P24A05V	1,2248
18N03P24A05W	1,2248
18N03P24A05X	1,2248
18N03P24A03J	1,2248
18N03P24A03N	1,2248
18N03P24A03P	1,2248
18N03P24A03T	1,2248
18N03P24A03U	1,2249
18N03P24A03V	1,2249
18N03P24A03Z	1,2249
18N03P24A04B	1,2248
18N03P24A04C	1,2248
18N03P24A04D	1,2248
18N03P24A04E	1,2248
18N03P24A04F	1,2248

Celda	Área (ha)
18N03P24A04G	1,2248
18N03P24A04H	1,2248
18N03P24A04I	1,2248
18N03P24A04J	1,2249
18N03P24A04K	1,2248
18N03P24A04L	1,2248
18N03P24A04M	1,2249
18N03P24A04N	1,2249
18N03P24A04P	1,2249
18N03P24A04Q	1,2249
18N03P24A04R	1,2249
18N03P24A04S	1,2249
18N03P24A04T	1,2249
18N03P24A04U	1,2249
18N03P24A04V	1,2249
18N03P24A04W	1,2249
18N03P24A04X	1,2249
18N03P24A04Y	1,2249
18N03P24A04Z	1,2249
18N03P24A05A	1,2248
18N03P24A05B	1,2249

Celda	Área (ha)
18N03P24A05C	1,2249
18N03P24A05F	1,2249
18N03P24A05G	1,2249
18N03P24A05H	1,2249
18N03P24A05I	1,2249
18N03P24A05K	1,2249
18N03P24A05L	1,2249
18N03P24A05M	1,2249
18N03P24A05N	1,2249
18N03P24A05Q	1,2249
18N03P24A05R	1,2249
18N03P24A05S	1,2249
18N03P24A05V	1,2249
18N03P24A05W	1,2249
18N03P24A05X	1,2249
18N03P24A08D	1,2249
18N03P24A08E	1,2249
18N03P24A08J	1,2249
18N03P24A08K	1,2249
18N03P24A08P	1,2249

[Firma]

OTROSÍ NO. 11 AL CONTRATO No. 070-89, SUSCRITO ENTRE LA AGENCIA NACIONAL DE MINERÍA Y ACERÍAS PAZ DEL RÍO

Celda	Área (ha)
18N03P24A09A	1,2249
18N03P24A09B	1,2249
18N03P24A09C	1,2249
18N03P24A09D	1,2249
18N03P24A09E	1,2249

Celda	Área (ha)
18N03P24A09F	1,2249
18N03P24A09G	1,2249
18N03P24A09H	1,2249
18N03P24A09I	1,2249
18N03P24A09J	1,2249

Celda	Área (ha)
18N03P24A09K	1,2249
18N03P24A10A	1,2249
18N03P24A10B	1,2249
18N03P24A10F	1,2249
18N03P24A10G	1,2249

- **Polígono 12 – Formalización Minera “Comaita Norte”.** Se localiza en la zona 1, en el bloque Comaita del título minero, bajo jurisdicción del municipio de Socotá, cubre un área de 290,3141 hectáreas, demarcadas dentro de 70 vértices y 237 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss-Kruger (Transversa de Mercator), Magna Colombia Bogotá (a partir de la sumatoria de las áreas de las celdas completamente contenidas en el polígono, que se encuentra calculada en el atributo AREA_HA, de la capa MTA_GRID_CELDA del Sistema Integral de Gestión Minera - SIGM Anna Minería).

Vértices de delimitación del polígono 12 – Formalización Minera “Comaita Norte”.

Vértice	Latitud	Longitud
1	6,07700	-72,64500
2	6,07600	-72,64500
3	6,07600	-72,64400
4	6,07600	-72,64300
5	6,07600	-72,64200
6	6,07600	-72,64100
7	6,07600	-72,64000
8	6,07600	-72,63900
9	6,07600	-72,63800
10	6,07600	-72,63700
11	6,07600	-72,63600
12	6,07600	-72,63500
13	6,07600	-72,63400
14	6,07500	-72,63400
15	6,07500	-72,63300
16	6,07400	-72,63300
17	6,07300	-72,63300
18	6,07200	-72,63300
19	6,07100	-72,63300
20	6,07000	-72,63300
21	6,06900	-72,63300
22	6,06800	-72,63300
23	6,06700	-72,63300
24	6,06600	-72,63300

Vértice	Latitud	Longitud
25	6,06500	-72,63300
26	6,06400	-72,63300
27	6,06400	-72,63400
28	6,06400	-72,63500
29	6,06400	-72,63600
30	6,06400	-72,63700
31	6,06400	-72,63800
32	6,06400	-72,63900
33	6,06400	-72,64000
34	6,06400	-72,64100
35	6,06500	-72,64100
36	6,06500	-72,64200
37	6,06500	-72,64300
38	6,06500	-72,64400
39	6,06500	-72,64500
40	6,06500	-72,64600
41	6,06600	-72,64600
42	6,06600	-72,64700
43	6,06600	-72,64800
44	6,06600	-72,64900
45	6,06600	-72,65000
46	6,06700	-72,65000
47	6,06700	-72,65100
48	6,06700	-72,65200

Vértice	Latitud	Longitud
49	6,06700	-72,65300
50	6,06700	-72,65400
51	6,06700	-72,65500
52	6,06800	-72,65500
53	6,06900	-72,65500
54	6,07000	-72,65500
55	6,07100	-72,65500
56	6,07100	-72,65400
57	6,07200	-72,65400
58	6,07300	-72,65400
59	6,07400	-72,65400
60	6,07500	-72,65400
61	6,07500	-72,65300
62	6,07600	-72,65300
63	6,07700	-72,65300
64	6,07700	-72,65200
65	6,07700	-72,65100
66	6,07700	-72,65000
67	6,07700	-72,64900
68	6,07700	-72,64800
69	6,07700	-72,64700
70	6,07700	-72,64600

Listado de celdas contenidas del Polígono 12 - Formalización minera “Comaita Norte”, comprende un total de 237 celdas.

Celda	Área (ha)
18N03P24B25S	1,2249
18N03P24B25T	1,2249
18N03P24B25U	1,2249
18N03P24B25V	1,2249
18N03P24B25X	1,2249
18N03P24B25Y	1,2249
18N03P24C21Q	1,2249
18N03P24C21R	1,2249
18N03P24C21S	1,2249
18N03P24C21T	1,2249
18N03P24C21U	1,2249
18N03P24C21V	1,2249
18N03P24C21W	1,2249
18N03P24C21X	1,2249
18N03P24C21Y	1,2249
18N03P24C21Z	1,2249

Celda	Área (ha)
18N03P24C22V	1,2249
18N03P24C22W	1,2249
18N03P24C22X	1,2249
18N03P24C22Y	1,2249
18N03P24C22Z	1,2249
18N03P24C23V	1,2249
18N03P24C23W	1,2249
18N03P24C23X	1,2249
18N03P24C23Y	1,2249
18N03P24C23Z	1,2249
18N03P24C24V	1,2250
18N03P24F05B	1,2249
18N03P24F05C	1,2249
18N03P24F05D	1,2249
18N03P24F05E	1,2249
18N03P24F05G	1,2249

Celda	Área (ha)
18N03P24F05H	1,2249
18N03P24F05I	1,2249
18N03P24F05J	1,2249
18N03P24F05L	1,2249
18N03P24F05M	1,2249
18N03P24F05N	1,2249
18N03P24F05P	1,2249
18N03P24F05R	1,2249
18N03P24F05S	1,2249
18N03P24F05T	1,2249
18N03P24F05U	1,2249
18N03P24F05V	1,2249
18N03P24F05W	1,2249
18N03P24F05X	1,2249
18N03P24F05Y	1,2249
18N03P24F05Z	1,2249



OTROSÍ NO. 11 AL CONTRATO No. 070-89, SUSCRITO ENTRE LA AGENCIA NACIONAL DE MINERÍA Y ACERÍAS PAZ DEL RÍO

Celda	Área (ha)
18N03P24F10A	1,2249
18N03P24F10B	1,2249
18N03P24F10C	1,2249
18N03P24F10D	1,2249
18N03P24F10E	1,2249
18N03P24F10F	1,2249
18N03P24F10G	1,2249
18N03P24F10H	1,2249
18N03P24F10I	1,2249
18N03P24F10J	1,2249
18N03P24F10K	1,2249
18N03P24F10L	1,2249
18N03P24F10M	1,2249
18N03P24F10N	1,2250
18N03P24F10P	1,2250
18N03P24G01A	1,2249
18N03P24G01B	1,2249
18N03P24G01C	1,2249
18N03P24G01D	1,2249
18N03P24G01E	1,2249
18N03P24G01F	1,2249
18N03P24G01G	1,2249
18N03P24G01H	1,2249
18N03P24G01I	1,2249
18N03P24G01J	1,2249
18N03P24G01K	1,2249
18N03P24G01L	1,2249
18N03P24G01M	1,2249
18N03P24G01N	1,2249
18N03P24G01P	1,2249
18N03P24G01Q	1,2249
18N03P24G01R	1,2249
18N03P24G01S	1,2249
18N03P24G01T	1,2249
18N03P24G01U	1,2249
18N03P24G01V	1,2249
18N03P24G01W	1,2249
18N03P24G01X	1,2249
18N03P24G01Y	1,2249
18N03P24G01Z	1,2249
18N03P24G02A	1,2249
18N03P24G02B	1,2249
18N03P24G02C	1,2249
18N03P24G02D	1,2249
18N03P24G02E	1,2249
18N03P24G02F	1,2249
18N03P24G02G	1,2249
18N03P24G02H	1,2249
18N03P24G02I	1,2249
18N03P24G02J	1,2249
18N03P24G02K	1,2249
18N03P24G02L	1,2249
18N03P24G02M	1,2249
18N03P24G02N	1,2249
18N03P24G02P	1,2250
18N03P24G02Q	1,2249
18N03P24G02R	1,2249
18N03P24G02S	1,2250
18N03P24G02T	1,2250
18N03P24G02U	1,2250
18N03P24G02V	1,2250
18N03P24G02W	1,2250
18N03P24G02X	1,2250

Celda	Área (ha)
18N03P24G02Y	1,2250
18N03P24G02Z	1,2250
18N03P24G03A	1,2249
18N03P24G03B	1,2249
18N03P24G03C	1,2249
18N03P24G03D	1,2250
18N03P24G03E	1,2250
18N03P24G03F	1,2249
18N03P24G03G	1,2250
18N03P24G03H	1,2250
18N03P24G03I	1,2250
18N03P24G03J	1,2250
18N03P24G03K	1,2250
18N03P24G03L	1,2250
18N03P24G03M	1,2250
18N03P24G03N	1,2250
18N03P24G03P	1,2250
18N03P24G03Q	1,2250
18N03P24G03R	1,2250
18N03P24G03S	1,2250
18N03P24G03T	1,2250
18N03P24G03U	1,2250
18N03P24G03V	1,2250
18N03P24G03W	1,2250
18N03P24G03X	1,2250
18N03P24G03Y	1,2250
18N03P24G03Z	1,2250
18N03P24G04A	1,2250
18N03P24G04B	1,2250
18N03P24G04F	1,2250
18N03P24G04G	1,2250
18N03P24G04K	1,2250
18N03P24G04L	1,2250
18N03P24G04Q	1,2250
18N03P24G04R	1,2250
18N03P24G04V	1,2250
18N03P24G04W	1,2250
18N03P24G06A	1,2249
18N03P24G06B	1,2249
18N03P24G06C	1,2249
18N03P24G06D	1,2250
18N03P24G06E	1,2250
18N03P24G06F	1,2249
18N03P24G06G	1,2250
18N03P24G06H	1,2250
18N03P24G06I	1,2250
18N03P24G06J	1,2250
18N03P24G06K	1,2250
18N03P24G06L	1,2250
18N03P24G06M	1,2250
18N03P24G06N	1,2250
18N03P24G06P	1,2250
18N03P24G06Q	1,2250
18N03P24G06R	1,2250
18N03P24G06S	1,2250
18N03P24G06T	1,2250
18N03P24G06U	1,2250
18N03P24G06Z	1,2250
18N03P24G07A	1,2250
18N03P24G07B	1,2250
18N03P24G07C	1,2250
18N03P24G07D	1,2250
18N03P24G07E	1,2250

Celda	Área (ha)
18N03P24G07F	1,2250
18N03P24G07G	1,2250
18N03P24G07H	1,2250
18N03P24G07I	1,2250
18N03P24G07J	1,2250
18N03P24G07K	1,2250
18N03P24G07L	1,2250
18N03P24G07M	1,2250
18N03P24G07N	1,2250
18N03P24G07P	1,2250
18N03P24G07Q	1,2250
18N03P24G07R	1,2250
18N03P24G07S	1,2250
18N03P24G07T	1,2250
18N03P24G07U	1,2250
18N03P24G07V	1,2250
18N03P24G07W	1,2250
18N03P24G07X	1,2250
18N03P24G07Y	1,2250
18N03P24G07Z	1,2250
18N03P24G08A	1,2250
18N03P24G08B	1,2250
18N03P24G08C	1,2250
18N03P24G08D	1,2250
18N03P24G08E	1,2250
18N03P24G08F	1,2250
18N03P24G08G	1,2250
18N03P24G08H	1,2250
18N03P24G08I	1,2250
18N03P24G08J	1,2250
18N03P24G08K	1,2250
18N03P24G08L	1,2250
18N03P24G08M	1,2250
18N03P24G08N	1,2250
18N03P24G08P	1,2250
18N03P24G08Q	1,2250
18N03P24G08R	1,2250
18N03P24G08S	1,2250
18N03P24G08T	1,2250
18N03P24G08U	1,2250
18N03P24G08V	1,2250
18N03P24G08W	1,2250
18N03P24G08X	1,2250
18N03P24G08Y	1,2250
18N03P24G08Z	1,2250
18N03P24G09A	1,2250
18N03P24G09B	1,2250
18N03P24G09F	1,2250
18N03P24G09G	1,2250
18N03P24G09K	1,2250
18N03P24G09L	1,2250
18N03P24G09Q	1,2250
18N03P24G09R	1,2250
18N03P24G09V	1,2250
18N03P24G09W	1,2250
18N03P24G12E	1,2250
18N03P24G13A	1,2250
18N03P24G13B	1,2250
18N03P24G13C	1,2250
18N03P24G13D	1,2250
18N03P24G13E	1,2250
18N03P24G14A	1,2250
18N03P24G14B	1,2250

- **Polígono 13 – Formalización Minera “Cómez”.** Se localiza en la zona 1, en el bloque El Alto del título minero, bajo jurisdicción del municipio de Socha, cubre un área de 148,2250 hectáreas, demarcadas dentro de 60 vértices y 121 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS,



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OTROSÍ NO. 11 AL CONTRATO No. 070-89, SUSCRITO ENTRE LA AGENCIA NACIONAL DE MINERÍA Y ACERÍAS PAZ DEL RÍO

coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss-Kruger (Transversa de Mercator), Magna Colombia Bogotá (a partir de la sumatoria de las áreas de las celdas completamente contenidas en el polígono, que se encuentra calculada en el atributo AREA_HA, de la capa MTA_GRID_CELDA del Sistema Integral de Gestión Minera - SIGM Anna Minería).

Vértices de delimitación del polígono 13 – Formalización Minera “Cómez”.

Vértice	Latitud	Longitud
1	6,06300	-72,65500
2	6,06200	-72,65500
3	6,06200	-72,65400
4	6,06100	-72,65400
5	6,06100	-72,65300
6	6,06000	-72,65300
7	6,06000	-72,65200
8	6,06000	-72,65100
9	6,06000	-72,65000
10	6,05900	-72,65000
11	6,05800	-72,65000
12	6,05700	-72,65000
13	6,05700	-72,64900
14	6,05600	-72,64900
15	6,05600	-72,64800
16	6,05500	-72,64800
17	6,05500	-72,64700
18	6,05400	-72,64700
19	6,05400	-72,64600
20	6,05300	-72,64600
21	6,05200	-72,64600

Vértice	Latitud	Longitud
22	6,05100	-72,64600
23	6,05000	-72,64600
24	6,04900	-72,64600
25	6,04800	-72,64600
26	6,04700	-72,64600
27	6,04700	-72,64700
28	6,04700	-72,64800
29	6,04700	-72,64900
30	6,04600	-72,64900
31	6,04600	-72,65000
32	6,04600	-72,65100
33	6,04500	-72,65100
34	6,04500	-72,65200
35	6,04500	-72,65300
36	6,04600	-72,65300
37	6,04700	-72,65300
38	6,04700	-72,65400
39	6,04800	-72,65400
40	6,04900	-72,65400
41	6,05000	-72,65400
42	6,05000	-72,65500

Vértice	Latitud	Longitud
43	6,05100	-72,65500
44	6,05200	-72,65500
45	6,05300	-72,65500
46	6,05400	-72,65500
47	6,05500	-72,65500
48	6,05500	-72,65600
49	6,05600	-72,65600
50	6,05700	-72,65600
51	6,05800	-72,65600
52	6,05800	-72,65700
53	6,05800	-72,65800
54	6,05900	-72,65800
55	6,06000	-72,65800
56	6,06100	-72,65800
57	6,06200	-72,65800
58	6,06200	-72,65700
59	6,06200	-72,65600
60	6,06300	-72,65600

Listado de celdas contenidas del Polígono 13 - Formalización minera “Cómez”, comprende un total de 121 celdas.

Celda	Área (ha)
18N03P24F14P	1,2250
18N03P24F14S	1,2250
18N03P24F14T	1,2250
18N03P24F14U	1,2250
18N03P24F14X	1,2250
18N03P24F14Y	1,2250
18N03P24F14Z	1,2250
18N03P24F15Q	1,2250
18N03P24F15V	1,2250
18N03P24F15W	1,2250
18N03P24F15C	1,2250
18N03P24F15D	1,2250
18N03P24F15E	1,2250
18N03P24F15H	1,2250
18N03P24F15I	1,2250
18N03P24F15J	1,2250
18N03P24F15K	1,2250
18N03P24F15L	1,2250
18N03P24F15M	1,2250
18N03P24F15N	1,2250
18N03P24F15O	1,2250
18N03P24F15P	1,2250
18N03P24F15Q	1,2250
18N03P24F15R	1,2250
18N03P24F15S	1,2250
18N03P24F15T	1,2250
18N03P24F15U	1,2250

Celda	Área (ha)
18N03P24F20N	1,2250
18N03P24F20P	1,2250
18N03P24F20Q	1,2250
18N03P24F20R	1,2250
18N03P24F20S	1,2250
18N03P24F20T	1,2250
18N03P24F20U	1,2250
18N03P24F20V	1,2250
18N03P24F20W	1,2250
18N03P24F20X	1,2250
18N03P24F20Y	1,2250
18N03P24F20Z	1,2250
18N03P24F25A	1,2250
18N03P24F25B	1,2250
18N03P24F25C	1,2250
18N03P24F25D	1,2250
18N03P24F25E	1,2250
18N03P24F25F	1,2250
18N03P24F25G	1,2250
18N03P24F25H	1,2250
18N03P24F25I	1,2250
18N03P24F25J	1,2250
18N03P24F25K	1,2250
18N03P24F25L	1,2250
18N03P24F25M	1,2250
18N03P24F25N	1,2250
18N03P24F25P	1,2250
18N03P24F25Q	1,2250
18N03P24F25R	1,2250
18N03P24F25S	1,2250
18N03P24F25T	1,2250
18N03P24F25U	1,2250

Celda	Área (ha)
18N03P24F25V	1,2250
18N03P24F25W	1,2250
18N03P24F25X	1,2250
18N03P24F25Y	1,2250
18N03P24F25Z	1,2250
18N03P24G16Q	1,2250
18N03P24G16V	1,2250
18N03P24G16W	1,2250
18N03P24G21A	1,2250
18N03P24G21B	1,2250
18N03P24G21C	1,2250
18N03P24G21F	1,2250
18N03P24G21G	1,2250
18N03P24G21H	1,2250
18N03P24G21I	1,2250
18N03P24G21K	1,2250
18N03P24G21L	1,2250
18N03P24G21M	1,2250
18N03P24G21N	1,2250
18N03P24G21Q	1,2250
18N03P24G21R	1,2250
18N03P24G21S	1,2250
18N03P24G21T	1,2250
18N03P24G21V	1,2250
18N03P24G21W	1,2250
18N03P24G21X	1,2250
18N03P24G21Y	1,2250
18N03P24J05A	1,2250
18N03P24J05C	1,2250
18N03P24J05D	1,2250
18N03P24J05E	1,2250
18N03P24J05G	1,2250



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Celda	Área (ha)
18N03P24J05H	1,2250
18N03P24J05I	1,2250
18N03P24J05J	1,2250
18N03P24J05L	1,2250
18N03P24J05M	1,2250
18N03P24J05N	1,2250
18N03P24J05P	1,2250
18N03P24J05S	1,2250
18N03P24J05T	1,2250
18N03P24J05U	1,2250

Celda	Área (ha)
18N03P24J05X	1,2250
18N03P24J05Y	1,2250
18N03P24K01A	1,2250
18N03P24K01B	1,2250
18N03P24K01C	1,2250
18N03P24K01D	1,2250
18N03P24K01F	1,2250
18N03P24K01G	1,2250
18N03P24K01H	1,2250
18N03P24K01I	1,2250

Celda	Área (ha)
18N03P24K01K	1,2250
18N03P24K01L	1,2250
18N03P24K01M	1,2250
18N03P24K01N	1,2250
18N03P24K01Q	1,2250

- **Polígono 14 – Formalización Minera “El Rincón 1”.** Se localiza en la zona 1, en el bloque El Tambor del título minero, bajo jurisdicción del municipio de Sativasur, cubre un área de 183,2068 hectáreas, demarcadas dentro de 44 vértices y 163 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss-Kruger (Transversa de Mercator), Magna Colombia Bogotá.

Vértices de delimitación del polígono 14 – Formalización Minera “El Rincón 1”.

Vértice	Latitud	Longitud
1	6,05200	-72,68800
2	6,05100	-72,68800
3	6,05100	-72,68700
4	6,05100	-72,68600
5	6,05000	-72,68500
6	6,05000	-72,68500
7	6,05000	-72,68400
8	6,04900	-72,68400
9	6,04900	-72,68300
10	6,04900	-72,68200
11	6,04900	-72,68100
12	6,04900	-72,68000
13	6,04800	-72,68000
14	6,04700	-72,68000
15	6,04600	-72,68000

Vértice	Latitud	Longitud
16	6,04600	-72,68100
17	6,04500	-72,68100
18	6,04400	-72,68100
19	6,04300	-72,68100
20	6,04200	-72,68100
21	6,04200	-72,68200
22	6,04100	-72,68200
23	6,04100	-72,68300
24	6,04000	-72,68300
25	6,04000	-72,68400
26	6,03900	-72,68400
27	6,03900	-72,68500
28	6,03900	-72,68600
29	6,03800	-72,68600
30	6,03800	-72,68700

Vértice	Latitud	Longitud
31	6,03800	-72,68800
32	6,03800	-72,68900
33	6,03800	-72,69000
34	6,03800	-72,69100
35	6,03700	-72,69100
36	6,03600	-72,69100
37	6,03600	-72,69200
38	6,03600	-72,69300
39	6,03600	-72,69400
40	6,03600	-72,69500
41	6,03600	-72,69600
42	6,03600	-72,69698
43	6,05200	-72,68909
44	6,05200	-72,68900

Listado de celdas asociadas al Polígono 14 - Formalización minera “El Rincón 1”, comprende un total de 163 celdas.

Celda
18N03P24E22Z
18N03P24E23Q
18N03P24E23R
18N03P24E23V
18N03P24E23W
18N03P24E23X
18N03P24E23Y
18N03P24I02E
18N03P24I02I
18N03P24I02J
18N03P24I02N
18N03P24I02P
18N03P24I02S
18N03P24I02T
18N03P24I02U
18N03P24I02X
18N03P24I02Y
18N03P24I02Z
18N03P24I03A
18N03P24I03B
18N03P24I03C
18N03P24I03D
18N03P24I03E
18N03P24I03F

Celda
18N03P24I03G
18N03P24I03H
18N03P24I03I
18N03P24I03J
18N03P24I03K
18N03P24I03L
18N03P24I03M
18N03P24I03N
18N03P24I03P
18N03P24I03Q
18N03P24I03R
18N03P24I03S
18N03P24I03T
18N03P24I03U
18N03P24I03V
18N03P24I03W
18N03P24I03X
18N03P24I03Y
18N03P24I03Z
18N03P24I04A
18N03P24I04F
18N03P24I04G
18N03P24I04H
18N03P24I04I

Celda
18N03P24I04J
18N03P24I04K
18N03P24I04L
18N03P24I04M
18N03P24I04N
18N03P24I04P
18N03P24I04Q
18N03P24I04R
18N03P24I04S
18N03P24I04T
18N03P24I04U
18N03P24I04V
18N03P24I04W
18N03P24I04X
18N03P24I04Y
18N03P24I05Z
18N03P24I07B
18N03P24I07C
18N03P24I07D
18N03P24I07E
18N03P24I07G
18N03P24I07H
18N03P24I07I
18N03P24I07J

Celda
18N03P24I07K
18N03P24I07L
18N03P24I07M
18N03P24I07N
18N03P24I07P
18N03P24I07Q
18N03P24I07R
18N03P24I07S
18N03P24I07T
18N03P24I07U
18N03P24I07V
18N03P24I07W
18N03P24I07X
18N03P24I07Y
18N03P24I07Z
18N03P24I08A
18N03P24I08B
18N03P24I08C
18N03P24I08D
18N03P24I08E
18N03P24I08F
18N03P24I08G
18N03P24I08H
18N03P24I08I

Celda
18N03P24I08J
18N03P24I08K
18N03P24I08L
18N03P24I08M
18N03P24I08N
18N03P24I08P
18N03P24I08Q
18N03P24I08R
18N03P24I08S
18N03P24I08T
18N03P24I08U
18N03P24I08V
18N03P24I08W
18N03P24I08X
18N03P24I08Y
18N03P24I08Z
18N03P24I09A
18N03P24I09B
18N03P24I09C
18N03P24I09D
18N03P24I09F
18N03P24I09G
18N03P24I09H
18N03P24I09I

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Celda
18N03P24I09K
18N03P24I09L
18N03P24I09M
18N03P24I09N
18N03P24I09Q
18N03P24I09R
18N03P24I09S
18N03P24I09V
18N03P24I09W

Celda
18N03P24I11E
18N03P24I11I
18N03P24I11N
18N03P24I11P
18N03P24I11T
18N03P24I11U
18N03P24I12A
18N03P24I12B
18N03P24I12C

Celda
18N03P24I12D
18N03P24I12E
18N03P24I12F
18N03P24I12G
18N03P24I12H
18N03P24I12I
18N03P24I12J
18N03P24I12K
18N03P24I12L

Celda
18N03P24I12M
18N03P24I12N
18N03P24I12Q
18N03P24I12R
18N03P24I12S
18N03P24I12T
18N03P24I13A
18N03P24I13B
18N03P24I13C

Celda
18N03P24I13D
18N03P24I13E
18N03P24I13F
18N03P24I13G
18N03P24I13H
18N03P24I13I
18N03P24I14A

- **Polígono 15 – Formalización Minera “Bella Vista”.** Se localiza en la zona 1, en el bloque El Alto del título minero, bajo jurisdicción del municipio de Socha, cubre un área de 281,3381 hectáreas, demarcadas dentro de 76 vértices y 238 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss-Kruger (Transversa de Mercator), Magna Colombia Bogotá.

Vértices de delimitación del polígono 15 – Formalización minera “Bella Vista”.

Vértice	Latitud	Longitud
1	6,03700	-72,68700
2	6,03600	-72,68700
3	6,03600	-72,68600
4	6,03500	-72,68600
5	6,03400	-72,68600
6	6,03400	-72,68500
7	6,03300	-72,68500
8	6,03200	-72,68500
9	6,03200	-72,68400
10	6,03100	-72,68400
11	6,03000	-72,68400
12	6,03000	-72,68300
13	6,02900	-72,68300
14	6,02800	-72,68300
15	6,02700	-72,68300
16	6,02700	-72,68200
17	6,02600	-72,68200
18	6,02500	-72,68200
19	6,02400	-72,68200
20	6,02400	-72,68100
21	6,02300	-72,68100
22	6,02200	-72,68100
23	6,02200	-72,68000
24	6,02100	-72,68000
25	6,02000	-72,68000
26	6,02000	-72,67900

Vértice	Latitud	Longitud
27	6,01900	-72,67900
28	6,01800	-72,67900
29	6,01800	-72,68000
30	6,01700	-72,68000
31	6,01700	-72,68100
32	6,01700	-72,68200
33	6,01600	-72,68200
34	6,01600	-72,68300
35	6,01500	-72,68300
36	6,01500	-72,68400
37	6,01500	-72,68500
38	6,01400	-72,68500
39	6,01400	-72,68600
40	6,01300	-72,68600
41	6,01300	-72,68700
42	6,01200	-72,68700
43	6,01100	-72,68700
44	6,01000	-72,68700
45	6,00900	-72,68700
46	6,00800	-72,68700
47	6,00700	-72,68700
48	6,00600	-72,68700
49	6,00500	-72,68700
50	6,00400	-72,68700
51	6,00300	-72,68700
52	6,00200	-72,68700

Vértice	Latitud	Longitud
53	6,02400	-72,69600
54	6,02300	-72,69600
55	6,02200	-72,69600
56	6,02100	-72,69600
57	6,02000	-72,69600
58	6,01900	-72,69600
59	6,01800	-72,69600
60	6,01700	-72,69600
61	6,01600	-72,69600
62	6,01500	-72,69600
63	6,01400	-72,69600
64	6,01300	-72,69600
65	6,01200	-72,69600
66	6,01100	-72,69600
67	6,01000	-72,69600
68	6,00900	-72,69600
69	6,00800	-72,69600
70	6,00700	-72,69600
71	6,00600	-72,69600
72	6,00500	-72,69600
73	6,00400	-72,69600
74	6,00300	-72,69600
75	6,00200	-72,69600
76	6,00100	-72,69600

Listado de celdas asociadas al Polígono 15 - Formalización minera “Bella Vista”, comprende un total de 238 celdas.

Celda
18N03P24I13S
18N03P24I13W
18N03P24I13X
18N03P24I13Y
18N03P24I17P
18N03P24I17T
18N03P24I17U
18N03P24I17X
18N03P24I17Y
18N03P24I17Z
18N03P24I18A
18N03P24I18B
18N03P24I18C

Celda
18N03P24I18D
18N03P24I18F
18N03P24I18G
18N03P24I18H
18N03P24I18I
18N03P24I18J
18N03P24I18K
18N03P24I18L
18N03P24I18M
18N03P24I18N
18N03P24I18P
18N03P24I18Q
18N03P24I18R

Celda
18N03P24I18S
18N03P24I18T
18N03P24I18U
18N03P24I18V
18N03P24I18W
18N03P24I18X
18N03P24I18Y
18N03P24I18Z
18N03P24I19Q
18N03P24I19V
18N03P24I21U
18N03P24I21Y
18N03P24I21Z

Celda
18N03P24I22B
18N03P24I22C
18N03P24I22D
18N03P24I22E
18N03P24I22G
18N03P24I22H
18N03P24I22I
18N03P24I22J
18N03P24I22K
18N03P24I22L
18N03P24I22M
18N03P24I22N
18N03P24I22P

Celda
18N03P24I22Q
18N03P24I22R
18N03P24I22S
18N03P24I22T
18N03P24I22U
18N03P24I22V
18N03P24I22W
18N03P24I22X
18N03P24I22Y
18N03P24I22Z
18N03P24I23A
18N03P24I23B
18N03P24I23C



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Celda	Celda	Celda	Celda	Celda
18N03P24I23D	18N03P24M01J	18N03P24M03K	18N03P24M04Z	18N03P24M08Y
18N03P24I23E	18N03P24M02A	18N03P24M03L	18N03P24M07B	18N03P24M08Z
18N03P24I23F	18N03P24M02B	18N03P24M03M	18N03P24M07C	18N03P24M09A
18N03P24I23G	18N03P24M02C	18N03P24M03N	18N03P24M07D	18N03P24M09B
18N03P24I23H	18N03P24M02D	18N03P24M03P	18N03P24M07E	18N03P24M09C
18N03P24I23I	18N03P24M02E	18N03P24M03Q	18N03P24M07H	18N03P24M09D
18N03P24I23J	18N03P24M02F	18N03P24M03R	18N03P24M07I	18N03P24M09E
18N03P24I23K	18N03P24M02G	18N03P24M03S	18N03P24M07J	18N03P24M09F
18N03P24I23L	18N03P24M02H	18N03P24M03T	18N03P24M07N	18N03P24M09G
18N03P24I23M	18N03P24M02I	18N03P24M03U	18N03P24M07P	18N03P24M09H
18N03P24I23N	18N03P24M02J	18N03P24M03V	18N03P24M07U	18N03P24M09I
18N03P24I23P	18N03P24M02K	18N03P24M03W	18N03P24M07Z	18N03P24M09J
18N03P24I23Q	18N03P24M02L	18N03P24M03X	18N03P24M08A	18N03P24M09K
18N03P24I23R	18N03P24M02M	18N03P24M03Y	18N03P24M08B	18N03P24M09L
18N03P24I23S	18N03P24M02N	18N03P24M03Z	18N03P24M08C	18N03P24M09M
18N03P24I23T	18N03P24M02P	18N03P24M04A	18N03P24M08D	18N03P24M09N
18N03P24I23U	18N03P24M02Q	18N03P24M04B	18N03P24M08E	18N03P24M09P
18N03P24I23V	18N03P24M02R	18N03P24M04C	18N03P24M08F	18N03P24M09Q
18N03P24I23W	18N03P24M02S	18N03P24M04F	18N03P24M08G	18N03P24M09R
18N03P24I23X	18N03P24M02T	18N03P24M04G	18N03P24M08H	18N03P24M09S
18N03P24I23Y	18N03P24M02U	18N03P24M04H	18N03P24M08I	18N03P24M09V
18N03P24I23Z	18N03P24M02W	18N03P24M04I	18N03P24M08J	18N03P24M09W
18N03P24I24A	18N03P24M02X	18N03P24M04K	18N03P24M08K	18N03P24M10A
18N03P24I24B	18N03P24M02Y	18N03P24M04L	18N03P24M08L	18N03P24M10F
18N03P24I24F	18N03P24M02Z	18N03P24M04M	18N03P24M08M	18N03P24M13A
18N03P24I24G	18N03P24M03A	18N03P24M04N	18N03P24M08N	18N03P24M13B
18N03P24I24K	18N03P24M03B	18N03P24M04Q	18N03P24M08P	18N03P24M13C
18N03P24I24L	18N03P24M03C	18N03P24M04R	18N03P24M08Q	18N03P24M13D
18N03P24I24Q	18N03P24M03D	18N03P24M04S	18N03P24M08R	18N03P24M13E
18N03P24I24R	18N03P24M03E	18N03P24M04T	18N03P24M08S	18N03P24M13G
18N03P24I24S	18N03P24M03F	18N03P24M04U	18N03P24M08T	18N03P24M13H
18N03P24I24V	18N03P24M03G	18N03P24M04V	18N03P24M08U	18N03P24M13I
18N03P24I24W	18N03P24M03H	18N03P24M04W	18N03P24M08V	18N03P24M13M
18N03P24I24X	18N03P24M03I	18N03P24M04X	18N03P24M08W	
18N03P24M01E	18N03P24M03J	18N03P24M04Y	18N03P24M08X	

- **Polígono 16 - Formalización Minera "La Esmeralda Guadalupe".** Se localiza en la zona 1, en el bloque Sibaria del título minero, jurisdicción del municipio de Paz de Río, cubre un área de 149,2599 hectáreas, demarcadas dentro de 49 vértices y 122 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss-Kruger (Transversa de Mercator), Magna Colombia Bogotá.

Vértices de delimitación del polígono 16 – Formalización Minera "La Esmeralda Guadalupe".

Vértice	Latitud	Longitud	Vértice	Latitud	Longitud	Vértice	Latitud	Longitud
1	6,02595	-72,70800	18	6,01300	-72,71200	35	6,02000	-72,71800
2	6,02500	-72,70800	19	6,01300	-72,71300	36	6,02100	-72,71800
3	6,02400	-72,70800	20	6,01300	-72,71400	37	6,02200	-72,71800
4	6,02300	-72,70800	21	6,01200	-72,71400	38	6,02300	-72,71800
5	6,02300	-72,70900	22	6,01200	-72,71500	39	6,02400	-72,71800
6	6,02200	-72,70900	23	6,01300	-72,71500	40	6,02500	-72,71800
7	6,02100	-72,70900	24	6,01300	-72,71600	41	6,02600	-72,71800
8	6,02000	-72,70900	25	6,01300	-72,71700	42	6,02600	-72,71700
9	6,01900	-72,70900	26	6,01300	-72,71800	43	6,02600	-72,71600
10	6,01800	-72,70900	27	6,01300	-72,71900	44	6,02600	-72,71500
11	6,01700	-72,70900	28	6,01400	-72,71900	45	6,02600	-72,71400
12	6,01600	-72,70900	29	6,01400	-72,71800	46	6,02600	-72,71300
13	6,01500	-72,70900	30	6,01500	-72,71800	47	6,02600	-72,71200
14	6,01400	-72,70900	31	6,01600	-72,71800	48	6,02600	-72,71143
15	6,01300	-72,70900	32	6,01700	-72,71800	49	6,02596	-72,71143
16	6,01300	-72,71000	33	6,01800	-72,71800			
17	6,01300	-72,71100	34	6,01900	-72,71800			

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Listado de celdas asociadas al Polígono 16 - Formalización minera "la Esmeralda - Guadalupe", comprende un total de 122 celdas.

Celda	Celda	Celda	Celda	Celda
18N03P23L22X	18N03P23Q08A	18N03P23Q04A	18N03P23Q08D	18N03P23Q09Q
18N03P23L22Y	18N03P23Q08B	18N03P23Q04B	18N03P23Q08E	18N03P23Q09V
18N03P23L22Z	18N03P23Q08C	18N03P23Q04F	18N03P23Q08F	18N03P23Q12C
18N03P23L23V	18N03P23Q08D	18N03P23Q04G	18N03P23Q08G	18N03P23Q12D
18N03P23L23W	18N03P23Q08E	18N03P23Q04K	18N03P23Q08H	18N03P23Q12E
18N03P23L23X	18N03P23Q08F	18N03P23Q04Q	18N03P23Q08I	18N03P23Q12G
18N03P23L23Y	18N03P23Q08G	18N03P23Q04V	18N03P23Q08J	18N03P23Q12H
18N03P23L23Z	18N03P23Q08H	18N03P23Q07C	18N03P23Q08K	18N03P23Q12I
18N03P23L24V	18N03P23Q08I	18N03P23Q07D	18N03P23Q08L	18N03P23Q12J
18N03P23L24W	18N03P23Q08J	18N03P23Q07E	18N03P23Q08M	18N03P23Q13A
18N03P23Q02C	18N03P23Q08K	18N03P23Q07H	18N03P23Q08N	18N03P23Q13B
18N03P23Q02D	18N03P23Q08L	18N03P23Q07I	18N03P23Q08P	18N03P23Q13C
18N03P23Q02E	18N03P23Q08M	18N03P23Q07J	18N03P23Q08Q	18N03P23Q13D
18N03P23Q02H	18N03P23Q08N	18N03P23Q07M	18N03P23Q08R	18N03P23Q13E
18N03P23Q02I	18N03P23Q08P	18N03P23Q07N	18N03P23Q08S	18N03P23Q13F
18N03P23Q02J	18N03P23Q08Q	18N03P23Q07P	18N03P23Q08T	18N03P23Q13G
18N03P23Q02M	18N03P23Q08R	18N03P23Q07S	18N03P23Q08U	18N03P23Q13H
18N03P23Q02N	18N03P23Q08S	18N03P23Q07T	18N03P23Q08V	18N03P23Q13I
18N03P23Q02P	18N03P23Q08T	18N03P23Q07U	18N03P23Q08W	18N03P23Q13J
18N03P23Q02S	18N03P23Q08U	18N03P23Q07X	18N03P23Q08X	18N03P23Q13K
18N03P23Q02T	18N03P23Q08V	18N03P23Q07Y	18N03P23Q08Y	18N03P23Q14A
18N03P23Q02U	18N03P23Q08W	18N03P23Q07Z	18N03P23Q08Z	18N03P23Q14F
18N03P23Q02X	18N03P23Q08X	18N03P23Q08A	18N03P23Q09A	
18N03P23Q02Y	18N03P23Q08Y	18N03P23Q08B	18N03P23Q09F	
18N03P23Q02Z	18N03P23Q08Z	18N03P23Q08C	18N03P23Q09K	

- **Polígono 17 – Formalización Minera "San Antonio".** Se localiza en la zona 1, en el bloque Sagra del título minero, jurisdicción del municipio de Socha, cubre un área de 103,2239 hectáreas, demarcadas dentro de 31 vértices y 98 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss- Kruger (Transversa de Mercator), Magna Colombia Bogotá.

Vértices de delimitación del polígono 17 – Formalización minera "San Antonio".

Vértice	Latitud	Longitud	Vértice	Latitud	Longitud	Vértice	Latitud	Longitud
1	5,99900	-72,69900	12	5,99300	-72,69400	23	5,98700	-72,69500
2	5,99800	-72,69900	13	5,99200	-72,69400	24	5,98700	-72,69600
3	5,99800	-72,69800	14	5,99200	-72,69300	25	5,98600	-72,69600
4	5,99700	-72,69800	15	5,99200	-72,69200	26	5,98600	-72,69700
5	5,99700	-72,69700	16	5,99100	-72,69200	27	5,98500	-72,69700
6	5,99600	-72,69700	17	5,99000	-72,69200	28	5,98500	-72,69736
7	5,99500	-72,69700	18	5,99000	-72,69300	29	5,99475	-72,70483
8	5,99500	-72,69600	19	5,98900	-72,69300	30	5,99913	-72,69908
9	5,99400	-72,69600	20	5,98900	-72,69400	31	5,99915	-72,69900
10	5,99400	-72,69500	21	5,98800	-72,69400			
11	5,99300	-72,69500	22	5,98800	-72,69500			

Listado de celdas asociadas al Polígono 17 - Formalización minera "San Antonio", comprende un total de 98 celdas.

Celda	Celda	Celda	Celda	Celda
18N06C03D05J	18N06C03D05Y	18N06C03D10I	18N06C03D10Z	18N06C04A01S
18N06C03D05N	18N06C03D05Z	18N06C03D10J	18N06C03D15D	18N06C04A01V
18N06C03D05P	18N06C03D10A	18N06C03D10L	18N06C03D15E	18N06C04A01W
18N06C03D05R	18N06C03D10B	18N06C03D10M	18N06C03D15J	18N06C04A01X
18N06C03D05S	18N06C03D10C	18N06C03D10N	18N06C04A01A	18N06C04A06A
18N06C03D05T	18N06C03D10D	18N06C03D10P	18N06C04A01F	18N06C04A06B
18N06C03D05U	18N06C03D10E	18N06C03D10S	18N06C04A01K	18N06C04A06C
18N06C03D05V	18N06C03D10F	18N06C03D10T	18N06C04A01L	18N06C04A06D
18N06C03D05W	18N06C03D10G	18N06C03D10U	18N06C04A01Q	18N06C04A06F
18N06C03D05X	18N06C03D10H	18N06C03D10Y	18N06C04A01R	18N06C04A06G



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Celda
18N06C04A05H
18N06C04A06I
18N06C04A05J
18N06C04A06K
18N06C04A06L
18N06C04A06M
18N06C04A06N
18N06C04A06P
18N06C04A06Q
18N06C04A06R

Celda
18N06C04A06S
18N06C04A06T
18N06C04A06U
18N06C04A06V
18N06C04A06W
18N06C04A06X
18N06C04A06Y
18N06C04A06Z
18N06C04A07K
18N06C04A07Q

Celda
18N06C04A07R
18N06C04A07S
18N06C04A07V
18N06C04A07W
18N06C04A07X
18N06C04A11A
18N06C04A11B
18N06C04A11C
18N06C04A11D
18N06C04A11E

Celda
18N06C04A11F
18N06C04A11G
18N06C04A11H
18N06C04A11I
18N06C04A11J
18N06C04A11K
18N06C04A11L
18N06C04A11M
18N06C04A11N
18N06C04A11P

Celda
18N06C04A11R
18N06C04A11S
18N06C04A11T
18N06C04A11W
18N06C04A11X
18N06C04A12A
18N06C04A12B
18N06C04A12F

- **Polígono 18 – Formalización Minera “Cerezo 1A”.** Se localiza en la zona 1, en el bloque La Chapa del título minero, jurisdicción del municipio de Socha, cubre un área de 67,6003 hectáreas, demarcadas dentro de 31 vértices y 61 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss- Kruger (Transversa de Mercator), Magna Colombia Bogotá.

Vértices de delimitación del polígono 18 – Formalización Minera “Cerezo 1A”.

Vértice	Latitud	Longitud
1	5,97300	-72,71400
2	5,97200	-72,71400
3	5,97200	-72,71500
4	5,97100	-72,71500
5	5,97100	-72,71600
6	5,97100	-72,71700
7	5,97000	-72,71700
8	5,97000	-72,71800
9	5,97000	-72,71900
10	5,97000	-72,72000
11	5,97000	-72,72100

Vértice	Latitud	Longitud
12	5,97100	-72,72100
13	5,97100	-72,72200
14	5,97200	-72,72200
15	5,97200	-72,72300
16	5,97300	-72,72300
17	5,97300	-72,72336
18	5,97400	-72,72336
19	5,97400	-72,72300
20	5,97500	-72,72300
21	5,97500	-72,72200
22	5,97600	-72,72200

Vértice	Latitud	Longitud
23	5,97600	-72,72100
24	5,97700	-72,72100
25	5,97700	-72,72000
26	5,97800	-72,72000
27	5,97800	-72,71900
28	5,97900	-72,71900
29	5,97900	-72,71800
30	5,97900	-72,71783
31	5,97300	-72,71323

Listado de celdas asociadas al Polígono 18 - Formalización minera “Cerezo 1A”, comprende un total de 61 celdas.

Celda
18N06C03D21U
18N06C03D21Y
18N06C03D21Z
18N06C03D22G
18N06C03D22H
18N06C03D22K
18N06C03D22L
18N06C03D22M
18N06C03D22N
18N06C03D22Q
18N06C03D22R
18N06C03D22S
18N06C03D22T

Celda
18N06C03D22U
18N06C03D22V
18N06C03D22W
18N06C03D22X
18N06C03D22Y
18N06C03D22Z
18N06C03D23V
18N06C03H01C
18N06C03H01D
18N06C03H01E
18N06C03H01G
18N06C03H01H
18N06C03H01I

Celda
18N06C03H01J
18N06C03H01M
18N06C03H01N
18N06C03H01P
18N06C03H01T
18N06C03H01U
18N06C03H01Z
18N06C03H02A
18N06C03H02B
18N06C03H02C
18N06C03H02D
18N06C03H02E
18N06C03H02F

Celda
18N06C03H02G
18N06C03H02H
18N06C03H02I
18N06C03H02J
18N06C03H02K
18N06C03H02L
18N06C03H02M
18N06C03H02N
18N06C03H02P
18N06C03H02Q
18N06C03H02R
18N06C03H02S
18N06C03H02T

Celda
18N06C03H02U
18N06C03H02V
18N06C03H02W
18N06C03H02X
18N06C03H03A
18N06C03H03B
18N06C03H03F
18N06C03H03G
18N06C03H03K

- **Polígono 19 – Formalización Minera “Santa Fe”.** Se localiza en la zona 2, en el bloque Tres Chorros del título minero, jurisdicción del municipio de Samacá, cubre un área de 148,6933 hectáreas, demarcadas dentro de 51 vértices y 126 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss- Kruger (Transversa de Mercator), Magna Colombia Bogotá.

Vértices de delimitación del polígono 19 – Formalización Minera “Santa Fe”.



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Vértice	Latitud	Longitud
1	5,48700	-73,51500
2	5,48600	-73,51500
3	5,48600	-73,51600
4	5,48500	-73,51600
5	5,48500	-73,51700
6	5,48500	-73,51800
7	5,48500	-73,51900
8	5,48500	-73,52000
9	5,48600	-73,52000
10	5,48600	-73,52100
11	5,48700	-73,52100
12	5,48700	-73,52200
13	5,48700	-73,52300
14	5,48600	-73,52300
15	5,48600	-73,52400
16	5,48500	-73,52400
17	5,48500	-73,52500

Vértice	Latitud	Longitud
18	5,48500	-73,52600
19	5,48500	-73,52700
20	5,48500	-73,52783
21	5,49100	-73,53128
22	5,49100	-73,53100
23	5,49200	-73,53100
24	5,49200	-73,53000
25	5,49200	-73,52900
26	5,49200	-73,52800
27	5,49200	-73,52700
28	5,49200	-73,52600
29	5,49200	-73,52500
30	5,49200	-73,52400
31	5,49200	-73,52300
32	5,49300	-73,52300
33	5,49300	-73,52200
34	5,49300	-73,52100

Vértice	Latitud	Longitud
35	5,49300	-73,52000
36	5,49300	-73,51900
37	5,49300	-73,51800
38	5,49300	-73,51700
39	5,49300	-73,51600
40	5,49300	-73,51500
41	5,49300	-73,51400
42	5,49300	-73,51300
43	5,49300	-73,51200
44	5,49200	-73,51200
45	5,49100	-73,51200
46	5,49000	-73,51200
47	5,48900	-73,51200
48	5,48800	-73,51200
49	5,48800	-73,51300
50	5,48700	-73,51300
51	5,48700	-73,51400

Listado de celdas asociadas al Polígono 19 - Formalización minera "Santa Fe", comprende un total de 126 celdas.

Celda
18N06E05C09U
18N06E05C09Y
18N06E05C09Z
18N06E05C10Q
18N06E05C10R
18N06E05C10S
18N06E05C10T
18N06E05C10U
18N06E05C10V
18N06E05C10W
18N06E05C10X
18N06E05C10Y
18N06E05C10Z
18N06E05C14E
18N06E05C14J
18N06E05C15A
18N06E05C15B
18N06E05C15C
18N06E05C15D
18N06E05C15E
18N06E05C15F
18N06E05C15G
18N06E05C15H
18N06E05C15I
18N06E05C15J
18N06E05C15K

Celda
18N06E05C15L
18N06E05C15M
18N06E05C15N
18N06E05C15P
18N06E05C15R
18N06E05C15S
18N06E05C15T
18N06E05C15U
18N06E05C15W
18N06E05C15X
18N06E05C15Y
18N06E05C15Z
18N06E05D06M
18N06E05D06N
18N06E05D06P
18N06E05D06Q
18N06E05D06R
18N06E05D06S
18N06E05D06T
18N06E05D06U
18N06E05D06V
18N06E05D06W
18N06E05D06X
18N06E05D06Y
18N06E05D06Z
18N06E05D07K

Celda
18N06E05D07L
18N06E05D07M
18N06E05D07N
18N06E05D07P
18N06E05D07Q
18N06E05D07R
18N06E05D07S
18N06E05D07T
18N06E05D07U
18N06E05D07V
18N06E05D07W
18N06E05D07X
18N06E05D07Y
18N06E05D07Z
18N06E05D08K
18N06E05D08L
18N06E05D08M
18N06E05D08Q
18N06E05D08R
18N06E05D08S
18N06E05D08V
18N06E05D08W
18N06E05D08X
18N06E05D11A
18N06E05D11B
18N06E05D11C

Celda
18N06E05D11D
18N06E05D11E
18N06E05D11F
18N06E05D11G
18N06E05D11H
18N06E05D11I
18N06E05D11J
18N06E05D11K
18N06E05D11L
18N06E05D11M
18N06E05D11N
18N06E05D11P
18N06E05D11Q
18N06E05D11R
18N06E05D11U
18N06E05D11V
18N06E05D12A
18N06E05D12B
18N06E05D12C
18N06E05D12D
18N06E05D12E
18N06E05D12F
18N06E05D12G
18N06E05D12H
18N06E05D12I
18N06E05D12J

Celda
18N06E05D12K
18N06E05D12L
18N06E05D12M
18N06E05D12N
18N06E05D12P
18N06E05D12Q
18N06E05D12R
18N06E05D12S
18N06E05D12T
18N06E05D12U
18N06E05D12V
18N06E05D12W
18N06E05D12X
18N06E05D12Y
18N06E05D13A
18N06E05D13B
18N06E05D13C
18N06E05D13F
18N06E05D13G
18N06E05D13H
18N06E05D13K
18N06E05D13L

- **Polígono 20 – Formalización Minera "Ruchical".** Se localiza en la zona 2, en el bloque Tres Chorros del título minero, jurisdicción del municipio de Samacá, cubre un área de 37,8014 hectáreas, demarcadas dentro de 32 vértices y 39 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss-Kruger (Transversa de Mercator), Magna Colombia Bogotá.

Vértices de delimitación del polígono 20 – Formalización Minera "Ruchical"

Vértice	Latitud	Longitud
1	5,48700	-73,52100
2	5,48600	-73,52100
3	5,48600	-73,52000
4	5,48500	-73,52000

Vértice	Latitud	Longitud
5	5,48500	-73,51900
6	5,48500	-73,51800
7	5,48400	-73,51800
8	5,48300	-73,51800

Vértice	Latitud	Longitud
9	5,48300	-73,51900
10	5,48300	-73,52000
11	5,48300	-73,52100
12	5,48300	-73,52200



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Vértice	Latitud	Longitud
13	5,48300	-73,52300
14	5,48300	-73,52400
15	5,48300	-73,52500
16	5,48300	-73,52600
17	5,48300	-73,52600
18	5,48100	-73,52600
19	5,48000	-73,52600

Vértice	Latitud	Longitud
20	5,47949	-73,52600
21	5,47975	-73,53033
22	5,48214	-73,52619
23	5,48215	-73,52619
24	5,48500	-73,52783
25	5,48500	-73,52700
26	5,48500	-73,52600

Vértice	Latitud	Longitud
27	5,48500	-73,52500
28	5,48500	-73,52400
29	5,48600	-73,52400
30	5,48600	-73,52300
31	5,48700	-73,52300
32	5,48700	-73,52200

Listado de celdas asociadas al Polígono 20 - Formalización minera "Ruchical", comprende un total de 39 celdas.

Celda
18N06E05C20C
18N06E05C20D
18N06E05C20E
18N06E05C20H
18N06E05C20I
18N06E05C20J
18N06E05C20N
18N06E05C20R
18N06E05C20S

Celda
18N06E05C20T
18N06E05C20V
18N06E05C20W
18N06E05C20X
18N06E05C20Y
18N06E05C24E
18N06E05C25A
18N06E05C25B
18N06E05C25C

Celda
18N06E05C25D
18N06E05D11S
18N06E05D11T
18N06E05D11W
18N06E05D11X
18N06E05D11Y
18N06E05D11Z
18N06E05D16A
18N06E05D16H

Celda
18N06E05D16C
18N06E05D16D
18N06E05D16E
18N06E05D16F
18N06E05D16G
18N06E05D16H
18N06E05D16I
18N06E05D16J
18N06E05D17A

Celda
18N06E05D17B
18N06E05D17F
18N06E05D17G

- **Polígono 21 - Formalización Minera "El Ancón".** Se localiza en la zona 2, en el bloque Tres Chorros del título minero, jurisdicción del municipio de Samacá, cubre un área de 37,3619 hectáreas, demarcadas dentro de 23 vértices y 32 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss-Kruger (Transversa de Mercator), Magna Colombia Bogotá.

Vértices de delimitación del polígono 21 – Formalización Minera "El Ancón"

Vértice	Latitud	Longitud
1	5,47800	-73,52300
2	5,47800	-73,52385
3	5,47941	-73,52466
4	5,47949	-73,52600
5	5,48000	-73,52600
6	5,48100	-73,52600
7	5,48200	-73,52600
8	5,48300	-73,52600
9	5,48300	-73,52500

Vértice	Latitud	Longitud
10	5,48300	-73,52400
11	5,48300	-73,52300
12	5,48300	-73,52200
13	5,48300	-73,52100
14	5,48300	-73,52000
15	5,48300	-73,51900
16	5,48200	-73,51900
17	5,48100	-73,51900
18	5,48000	-73,51900

Vértice	Latitud	Longitud
19	5,47900	-73,51900
20	5,47900	-73,52000
21	5,47900	-73,52100
22	5,47800	-73,52100
23	5,47800	-73,52200

Listado de celdas asociadas al Polígono 21 - Formalización minera "El Ancón", comprende un total de 32 celdas.

Celda
18N06E05C20P
18N06E05C20U
18N06E05C20Z
18N06E05C25E
18N06E05D16K
18N06E05D16L
18N06E05D16M

Celda
18N06E05D16N
18N06E05D16P
18N06E05D16Q
18N06E05D16R
18N06E05D16S
18N06E05D16T
18N06E05D16U

Celda
18N06E05D16V
18N06E05D16W
18N06E05D16X
18N06E05D16Y
18N06E05D16Z
18N06E05D17K
18N06E05D17Q

Celda
18N06E05D17V
18N06E05D21A
18N06E05D21B
18N06E05D21C
18N06E05D21D
18N06E05D21E
18N06E05D21F

Celda
18N06E05D21G
18N06E05D21H
18N06E05D21I
18N06E05D21J

- **Polígono 22 – Formalización Minera "La Manguita".** Se localiza en la zona 2, en el bloque Ráquira del título minero, jurisdicción del municipio de Samacá, cubre un área de 148,7392 hectáreas, demarcadas dentro de 55 vértices y 134 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a

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la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss-Kruger (Transversa de Mercator), Magna Colombia Bogotá.

Vértices de delimitación del polígono 22 – Formalización Minera “La Manguita”.

Vértice	Latitud	Longitud
1	5,48700	-73,54900
2	5,48600	-73,54900
3	5,48600	-73,54800
4	5,48500	-73,54800
5	5,48500	-73,54700
6	5,48400	-73,54700
7	5,48371	-73,54700
8	5,48250	-73,54909
9	5,47400	-73,56382
10	5,47400	-73,56400
11	5,47400	-73,56500
12	5,47500	-73,56500
13	5,47500	-73,56600
14	5,47600	-73,56600
15	5,47600	-73,56700
16	5,47700	-73,56700
17	5,47700	-73,56800
18	5,47800	-73,56800
19	5,47900	-73,56800

Vértice	Latitud	Longitud
20	5,47900	-73,56900
21	5,48000	-73,56900
22	5,48000	-73,56800
23	5,48100	-73,56800
24	5,48100	-73,56700
25	5,48200	-73,56700
26	5,48200	-73,56600
27	5,48300	-73,56600
28	5,48300	-73,56500
29	5,48400	-73,56500
30	5,48400	-73,56400
31	5,48500	-73,56400
32	5,48500	-73,56300
33	5,48400	-73,56300
34	5,48400	-73,56200
35	5,48300	-73,56200
36	5,48300	-73,56100
37	5,48200	-73,56100
38	5,48200	-73,56000

Vértice	Latitud	Longitud
39	5,48100	-73,56000
40	5,48100	-73,55900
41	5,48200	-73,55900
42	5,48200	-73,55800
43	5,48200	-73,55700
44	5,48300	-73,55700
45	5,48300	-73,55600
46	5,48400	-73,55600
47	5,48400	-73,55500
48	5,48400	-73,55400
49	5,48500	-73,55400
50	5,48500	-73,55300
51	5,48600	-73,55300
52	5,48600	-73,55200
53	5,48600	-73,55100
54	5,48700	-73,55100
55	5,48700	-73,55000

Listado de celdas asociadas al Polígono 22 - Formalización minera “La Manguita”, comprende un total de 134 celdas.

Celda
18N06E05B15U
18N06E05B15X
18N06E05B15Y
18N06E05B15Z
18N06E05B17P
18N06E05B17T
18N06E05B17U
18N06E05B17X
18N06E05B17Y
18N06E05B17Z
18N06E05B18B
18N06E05B18F
18N06E05B18G
18N06E05B18H
18N06E05B18K
18N06E05B18L
18N06E05B18M
18N06E05B18N
18N06E05B18Q
18N06E05B18R
18N06E05B18S
18N06E05B18T
18N06E05B18U
18N06E05B18V
18N06E05B18W
18N06E05B18X
18N06E05B18Y

Celda
18N06E05B18Z
18N06E05B19J
18N06E05B19N
18N06E05B19P
18N06E05B19S
18N06E05B19T
18N06E05B19U
18N06E05B19V
18N06E05B19W
18N06E05B19X
18N06E05B19Y
18N06E05B19Z
18N06E05B20B
18N06E05B20C
18N06E05B20D
18N06E05B20E
18N06E05B20F
18N06E05B20G
18N06E05B20H
18N06E05B20I
18N06E05B20J
18N06E05B20K
18N06E05B20L
18N06E05B20M
18N06E05B20N
18N06E05B20P

Celda
18N06E05B20Q
18N06E05B20R
18N06E05B20S
18N06E05B20T
18N06E05B20U
18N06E05B20V
18N06E05B20W
18N06E05B20X
18N06E05B20Y
18N06E05B22B
18N06E05B22C
18N06E05B22D
18N06E05B22E
18N06E05B22H
18N06E05B22I
18N06E05B22J
18N06E05B22M
18N06E05B22N
18N06E05B22P
18N06E05B22T
18N06E05B22U
18N06E05B22Z
18N06E05B23A
18N06E05B23B
18N06E05B23C
18N06E05B23D
18N06E05B23E

Celda
18N06E05B23F
18N06E05B23G
18N06E05B23H
18N06E05B23I
18N06E05B23J
18N06E05B23K
18N06E05B23L
18N06E05B23M
18N06E05B23N
18N06E05B23P
18N06E05B23Q
18N06E05B23R
18N06E05B23S
18N06E05B23T
18N06E05B23U
18N06E05B23V
18N06E05B23W
18N06E05B23X
18N06E05B23Y
18N06E05B23Z
18N06E05B24A
18N06E05B24B
18N06E05B24C
18N06E05B24D
18N06E05B24E
18N06E05B24F
18N06E05B24G

Celda
18N06E05B24H
18N06E05B24I
18N06E05B24J
18N06E05B24K
18N06E05B24L
18N06E05B24M
18N06E05B24N
18N06E05B24Q
18N06E05B24R
18N06E05B25A
18N06E05B25B
18N06E05C11Q
18N06E05C11V
18N06E05C11W
18N06E05C16A
18N06E05C16B
18N06E05C16C
18N06E05C16F
18N06E05C16G
18N06E05C16H
18N06E05C16K
18N06E05C16L
18N06E05C16Q
18N06E05F03A
18N06E05F03B
18N06E05F03C

- Polígono 23 – Formalización Minera “Ráquira”.** Se localiza en la zona 2, en el bloque Ráquira del título minero, jurisdicción del municipio de Ráquira, cubre un área de 19,2702 hectáreas, demarcadas dentro de 14 vértices y 22 celdas. En el sistema de cuadrícula ANNA Minería, con sistema de referencia espacial MAGNA SIRGAS, coordenadas geográficas en grados decimales y el valor del área medida en hectáreas a la cuarta cifra decimal, calculada en origen central de la proyección cartográfica Gauss-Kruger (Transversa de Mercator), Magna Colombia Bogotá.



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Vértices de delimitación del polígono 23 – Formalización Minera “Ráquira”.

Vértice	Latitud	Longitud
1	5,42882	-73,63600
2	5,42900	-73,63600
3	5,43000	-73,63600
4	5,43100	-73,63600
5	5,43200	-73,63600

Vértice	Latitud	Longitud
6	5,43300	-73,63600
7	5,43300	-73,63500
8	5,43300	-73,63400
9	5,43400	-73,63400
10	5,43400	-73,63300

Vértice	Latitud	Longitud
11	5,43500	-73,63300
12	5,43500	-73,63200
13	5,43500	-73,63114
14	5,43077	-73,63262

Listado de celdas asociadas al Polígono 23 - Formalización minera “Ráquira”, comprende un total de 22 celdas.

Celda
18N06E04K18P
18N06E04K18U
18N06E04K18Z
18N06E04K19C
18N06E04K19D

Celda
18N06E04K19G
18N06E04K19H
18N06E04K19I
18N06E04K19K
18N06E04K19L

Celda
18N06E04K19M
18N06E04K19N
18N06E04K19Q
18N06E04K19R
18N06E04K19S

Celda
18N06E04K19V
18N06E04K19W
18N06E04K19X
18N06E04K23E
18N06E04K23J

Celda
18N06E04K24A
18N06E04K24B

PARÁGRAFO 6: Para efectos de dar cumplimiento a la cláusula tercera del presente Otrosí, transitoriamente harán parte del área contratada, los polígonos de interés objeto de formalización minera, hasta tanto se finiquiten los trámites y procedimientos pertinentes, para perfeccionar los procesos de devolución de áreas. El perfeccionamiento de estos procesos de formalización, modificarán el área de asociada al título minero No. 070-89.

CLÁUSULA 4. TRANSITORIA.

El contrato se prorrogará conservando el área de interés manifestada por **EL CONTRATISTA (4459,1237 hectáreas)** y las áreas que serán objeto de devolución para la formalización (**3013,4078 hectáreas**), figura creada en virtud del numeral 2 del artículo 19 de Ley 1753 de 2015, y reglamentada por el Decreto 1949 de 2017 y el Decreto 1378 de 2020. Tales devoluciones podrán hacerse con beneficiario o al banco de áreas que administra la Agencia Nacional de Minería. En el evento en que iniciado el proceso con un beneficiario no pudiere completarse por razones no imputables al titular minero, el área correspondiente ira, de forma directa, al banco de áreas sin necesidad de tramite adicional alguno por parte de **EL CONTRATISTA**.

PARÁGRAFO PRIMERO – EL CONTRATISTA deberá presentar dentro de los seis (6) meses siguientes a la suscripción del presente Otrosí, bien sea las solicitudes de devoluciones de áreas para la formalización a favor de pequeños mineros o las devoluciones de área para la formalización, con el objeto que sean incorporadas al Banco de Áreas, el cual será administrado por la Autoridad Minera Nacional para el desarrollo de proyectos de formalización minera, solicitudes que se radicarán conforme lo dispuesto en el Decreto 1949 de 2017 y el decreto 1378 de 2020. Las áreas que comprenderán las devoluciones de área para la formalización serán de (**3013,4078 hectáreas**) identificadas en el anexo tres (3) del presente Otrosí.

PARÁGRAFO SEGUNDO- Las solicitudes de devolución de áreas para la formalización minera, deberán ser resueltas por la Autoridad Minera dentro de los seis (6) meses siguientes a su presentación. En caso de que ello no ocurriere, no habrá lugar al cobro del canon superficial sobre dicha área si el titular minero ha cumplido la totalidad de los requisitos de ley para el mencionado trámite.

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